SAMSUNG

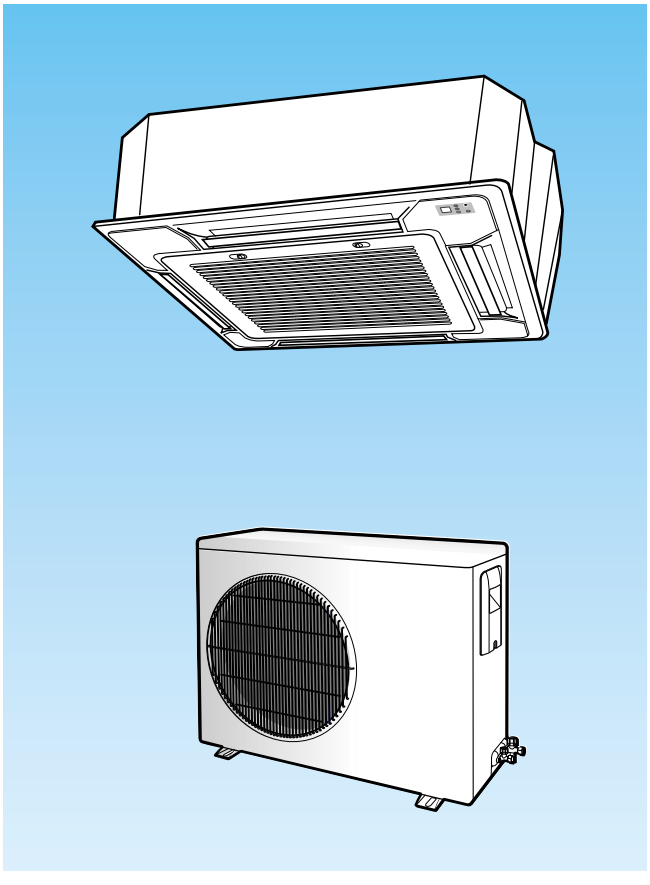
CASSETTE TYPE AIR CONDITIONER

(Cool and Heat)

Type	Indoor Unit	Outdoor Unit	Panel
ACH2400C	ICH2400C	UCH2400C	IFS095G05
ACH2800C	ICH2800C	UCH2800C	
ACC2400C	ICC2400C	UCC2400C	
ACC2800C	ICC2800C	UCC2800C	
ACC4400C	ICC4400C	UCC4400C	

SERVICE Manual

AIR CONDITIONER



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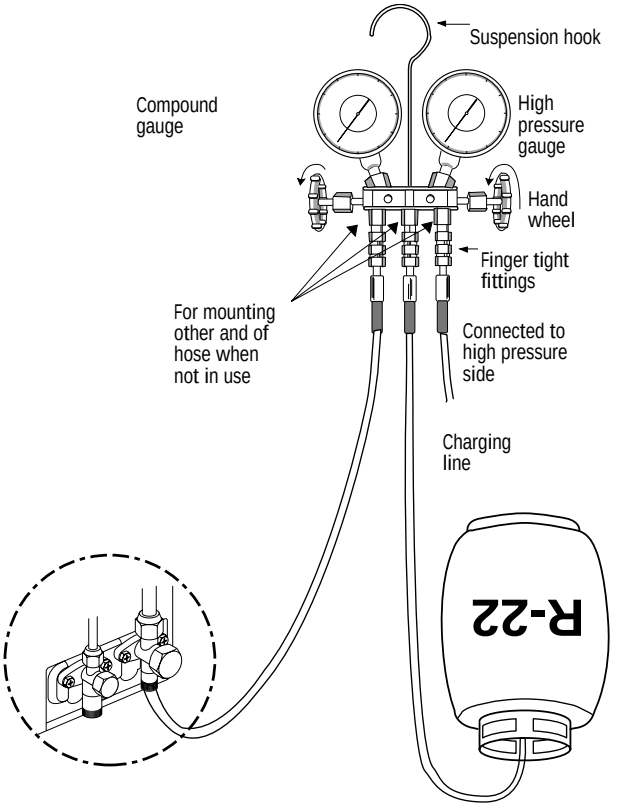
Ⓔ DB81-00206A(3)

1. Installation

1-1 Refrigerant Refill Procedure

• Refill an air-conditioner with refrigerant when refrigerant has been leaked at installing or using.

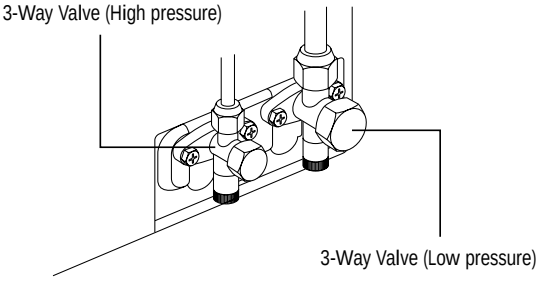
1. Purge air(for new installation only).
2. Turn the 3-way valve clockwise to close, connect the pressure gauge(low pressure side) to the service valve, and open the 3-way valve again.
3. Connect the tank to refill with Refrigerant
4. Set the unit to cool operation mode.
5. Check the pressure indicated by the pressure gauge(low pressure side).
   * Standard pressure is should be 64~78psi in a regular, high operation mode.
6. Open the refrigerant tank and fill with refrigerant until the rated pressure is reached.
   * It is recommended not to pour the refrigerant in too quickly, but gradually while operating a pressure valve.
7. Stop operation of the air conditioner.
8. Close the 3-way valve, disconnect the pressure gauge, and open the 3-way valve again.
9. Close the cap of each valve.



1-2 “Pump down” Procedure

Pump down shall be carried out when an evaporator is replaced or when the unit is relocated in another area.

1. Remove the caps from the two 3-way valves.
2. Turn the 3-way valve clockwise to close and connect a pressure gauge(low pressure side) to the service valve, and open the 3-way valve again.
3. Set the unit to cool operation mode. (Check if the compressor is operating.)
4. Turn the 3-way valve(High pressure side) clockwise to close.
5. When the pressure gauge indicates "0" turn the 3-way valve(Low pressure side) clockwise to close.
6. Stop operation of the air conditioner.
7. Close the cap of each valve.



Relocation of the air conditioner

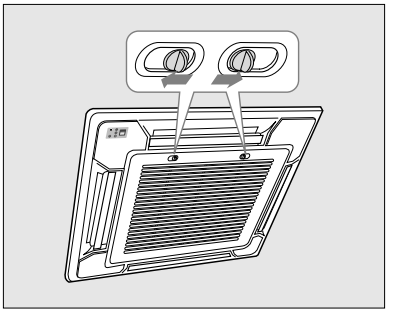
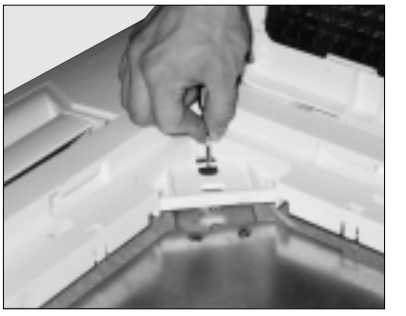
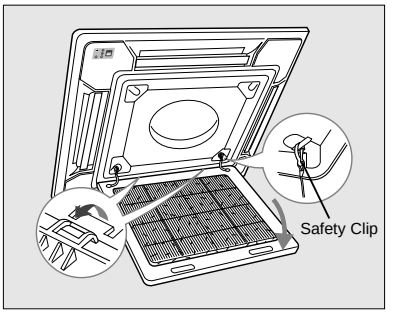
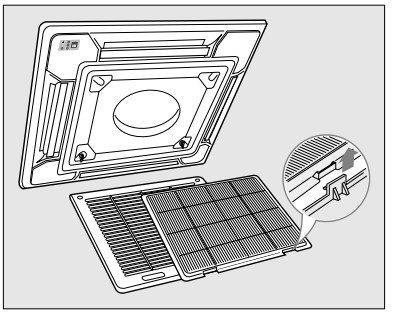
- Refer to this procedure when the unit is relocated.

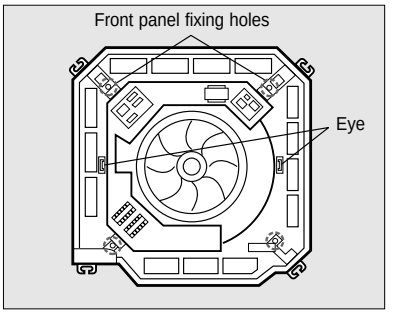
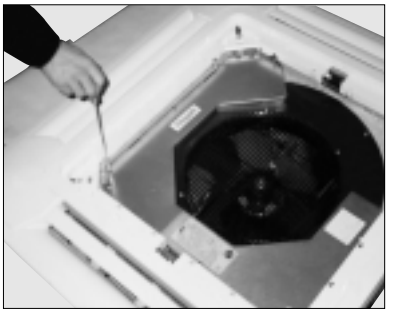
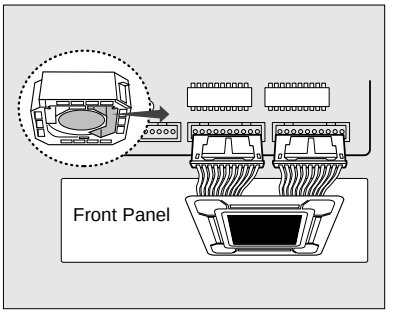
1. Carry out the pump down procedure (refer to the details of 'pump down').
2. Remove the power cord.
3. Disconnect the assembly cable from the indoor and outdoor units.
4. Remove the flare nut connecting the indoor unit and the pipe.
   At this time, cover the pipe of the indoor unit and the other pipe using a cap or vinyl plug to avoid foreign material entering.
5. Disconnect the pipe connected to the outdoor unit.
   At this time, cover the valve of the outdoor unit and the other pipe using a cap or vinyl plug to avoid foreign material entering.
6. Make sure you do not bend the connection pipes in the middle and store together with the cables.
7. Move the indoor and outdoor units to a new locatioon.
8. Remove the mounting plate for the indoor unit and move it to a new location.

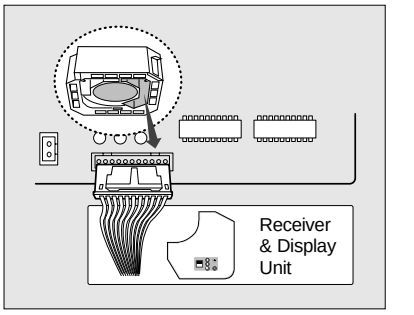
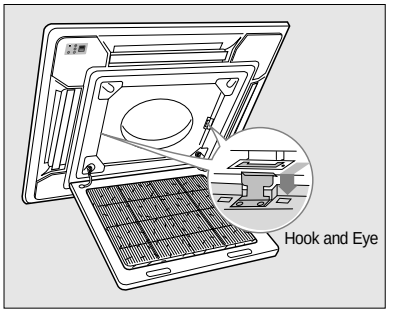
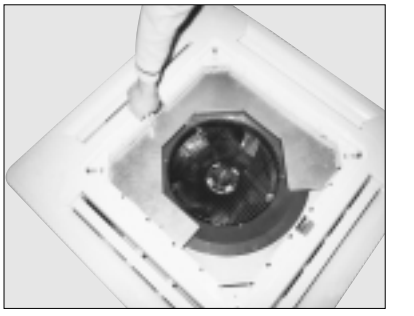
2. Disassembly and Reassembly

Stop operation of the air conditioner and remove the power cord before repairing the unit.

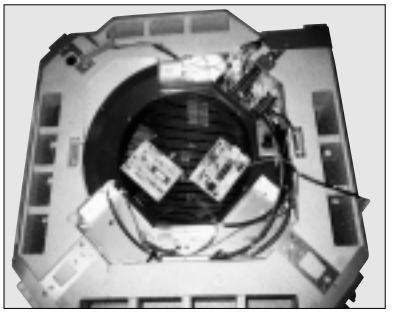
■ Indoor Unit

No.	Part name	Procedures	Picture
①	Front Grille & Filter	1. Open the front grille by pushing the tabs on the grille. **IMPORTANT** You must give attention when disassembling the front grille and must check the safety clips have been installed. If you don't ensure them, the front grille will drop suddenly and you will be hurt.	
		2. Remove the front grille. 2-1. Remove the safety clips. 2-2. Open the front grille about 45˚ and pull it forward.	
		3. Pull out the filter air.	 

No.	Part name	Procedures	Picture
		4. Slowly loosen the four bolts holding the panel to the assembly.	
		5. Open the electrical component box cover removing the screws. (3EA)	
		6. Disconnect the two cables between the assembly and the panel. - Stepping motor connectors. 6-1. Disconnect the three cables between the assembly and the panel. - Stepping motor connector - Receiver & Display unit connector (Optional)	

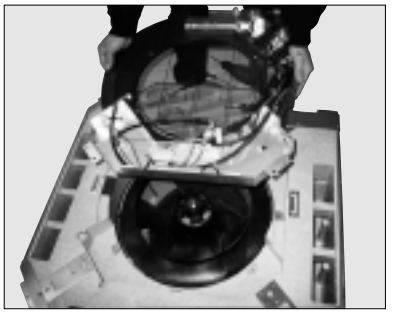
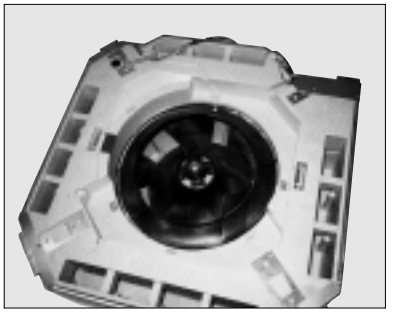
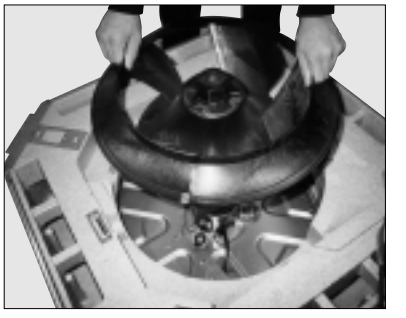
No.	Part name	Procedures	Picture
			<*Optional> 
		7. Separate the front panel using two hooks on the both sides of the indoor unit.	
②	Electronic part	Do ①-1, ①-2, ①-3 and ①-4 above. 1. Remove the screws(6EA) on the electrical component box and remove the cover plates.	
		2. Open the control box.	

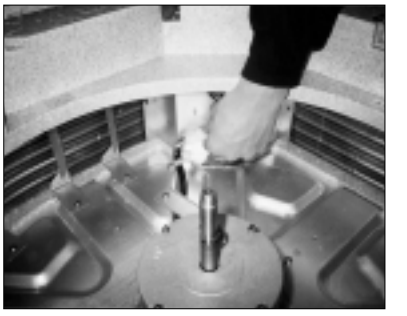
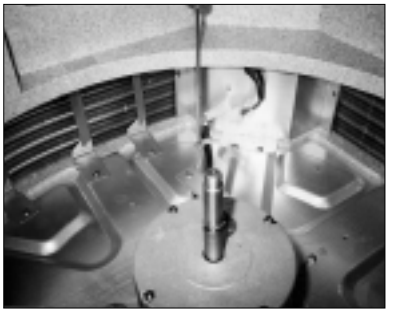
No.	Part name	Procedures	Picture
		3. Disconnect the other end of the cable to the outdoor unit through the ceiling & the hole on the wall between the control box and the assembly.	
③	**Method 1** Fan and motor	Do ① above. 1. Disconnect FAN MOTOR wire connector, thermistor wire connector, drain pump wire connector. 2. Disconnect wire connects to capacitor.	

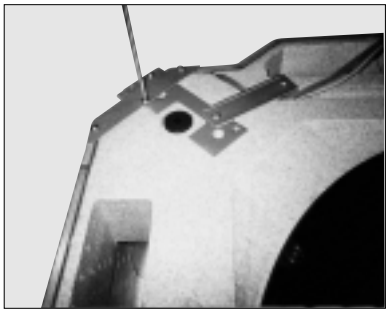
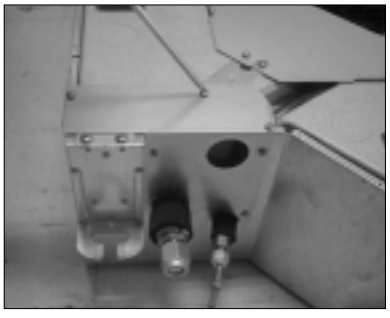
No.	Part name	Procedures	Picture
	Fan and motor	3. Disconnect float switch wire connected to terminal board (F1, F2).	
		4. Disconnect all connectors connected to PCB.	
		5. Remove PCB's from assy case PCB.	
		6. Remove the screws(9EA) for disconnection of Bell mouth and cushion drain.	

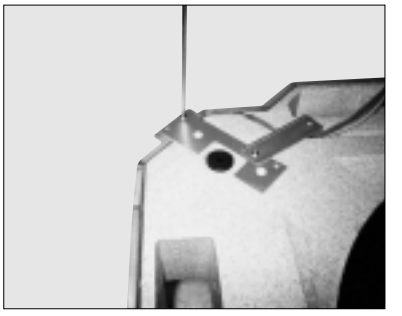
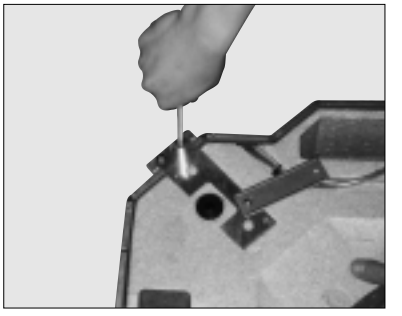
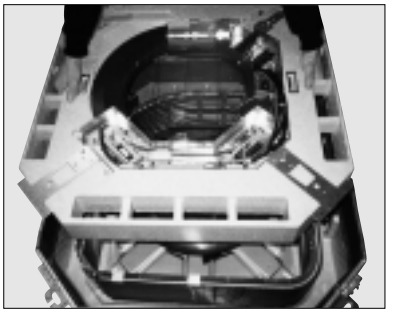
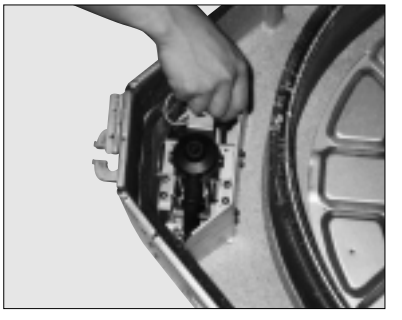
No.	Part name	Procedures	Picture
	Fan and motor		
	Pump		

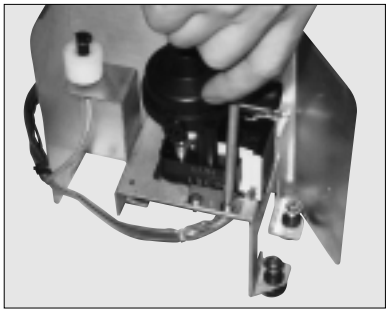
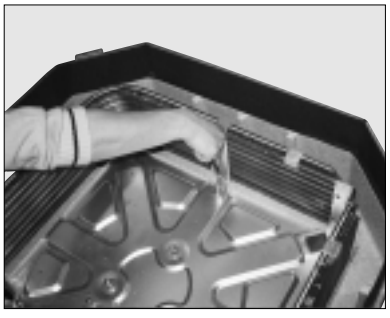
No.	Part name	Procedures	Picture
	Pump		

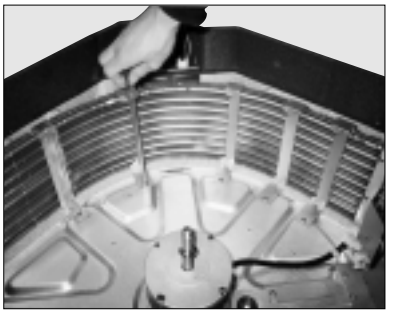
No.	Part name	Procedures	Picture
	Fan and motor	7. Seperate Bell mouth and Box Ass'y from cushion drain.	
			
		8. Loosen the nut and separate the assy holder fan.	
		9. Lift down carefully the Ass'y fan.	

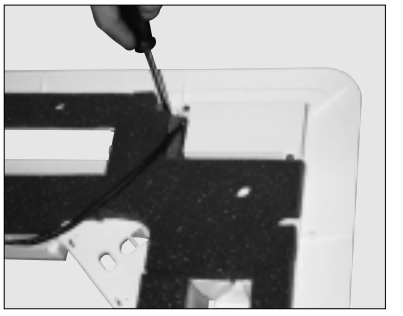
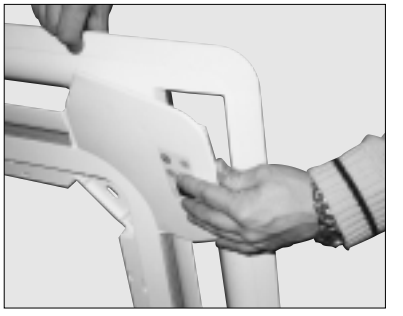
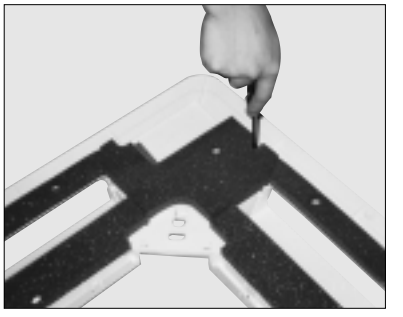
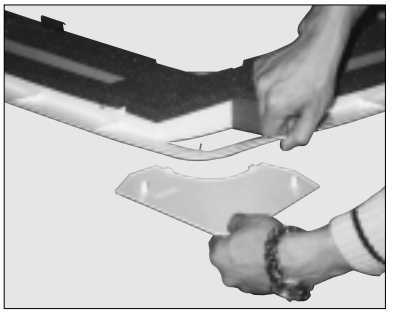
No.	Part name	Procedures	Picture
	Fan and motor	10. Separate the motor connector wire and separate the wire holder fixed the bottom floor.	
			
		11. Remove the screw fixed onto the bracket wire fixed on the bottom of product and remove screw fixed onto earth wire and separate carefully the ass'y motor in from the product after separation of nut of ass'y motor in and grommet mount motor.	

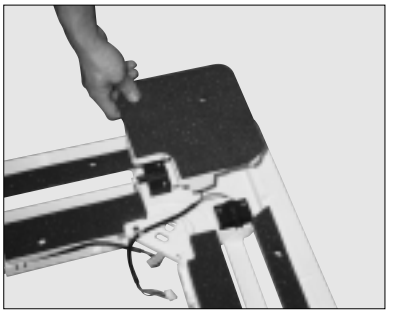
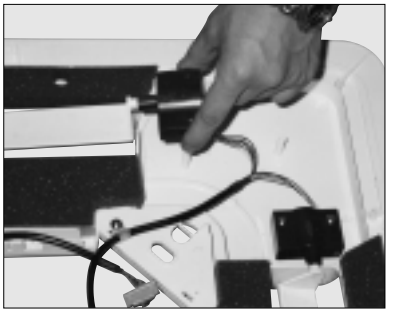
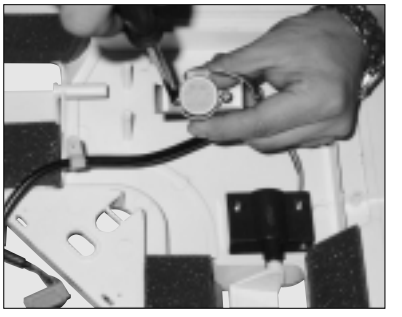
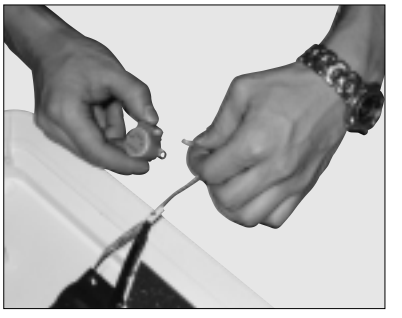
No.	Part name	Procedures	Picture
	Fan and motor		
④	**Method 2.** Pump	❋ Do ③-1, 2, 3 above. 1. For separation of Ass'y cushion drain from the main body. ① Cabinet guide A (2EA) ② Cabinet guide B (1EA) ③ Remove each cabinet power cord. ④ Remove the obstacles of pump drain and ass'y sensor float wire due to the movement of BKT wire.	  

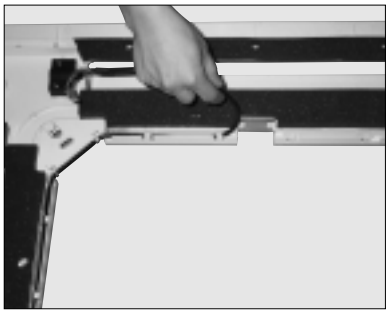
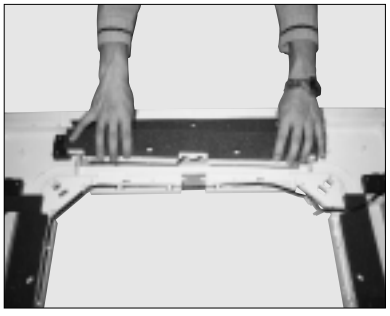
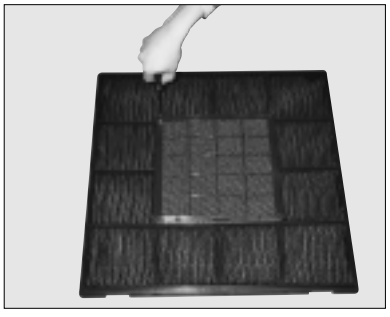
No.	Part name	Procedures	Picture
	Pump	2. For the separation of ass'y cushion drain form the main body, remove the fixing screw of bracket at each corner of cushion drain.	
		3. Take out the CAP drain socket inserted in the ass'y drain cushion to remove the condensate in the drain cushion. * Care must be taken for the taking out the condensate water.	
		4. Lift down carefully the Ass'y cushion drain from the main body.	
		5. Loosen three screws fixing the pump drain.	

No.	Part name	Procedures	Picture
	Pump	6. Separate the hose drain inserted in the outlet of pump drain.	
		7. Separate from the BKT pump the pump drain separated from the main body from the BKT pump.	
⑤	Heat exchanger	❋ Do ④-1 ~ ④-4 1. Separate the partition front evap fixing the heat exchanger to the base of main body.	
		2. Separate the holder evap (2 EA) fixing the heat exchanger to the base of main body.	

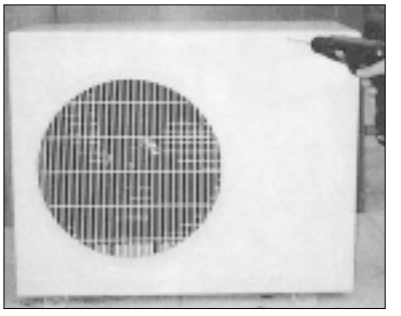
No.	Part name	Procedures	Picture
		3. Separate holder guide evap (4 EA).	
		4. Lift up the heat exchanger from the main body.	

No.	Part name	Procedures	Picture
⑥	Front panel -Cover Front	❋ Do ① above. Push 3 cover front fixing screws inside the front panel and snap fixing part to separate the cover front.	   

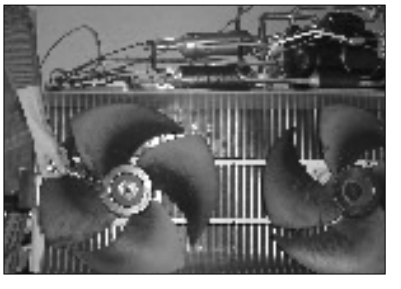
No.	Part name	Procedures	Picture
⑦	Front panel - Stepping Motor	❋ Do ① above. 1. Loosen each one of fixing screw at the corner part, ① cushion side-A and cushion side-B inside the front panel, and then lift it up.	
		2. Remove ① the screw of housing motor L/R fixed at the corner part of front panel inside and separate ② Blade-H.	
		3. ① Separate the stepping motor from the housing motor L/R and ② separate the motor wire connected.	
			

No.	Part name	Procedures	Picture
			
⑧	Front panel - Cushion-A	❋ Do ① above. Remove two screws fixing cushion-A inside the front and lift it up.	
⑨	Front panel - Bio-pure filter (Optional)	❋ Do 1-①, 1-② and 1-③ above. 1. Separate the bio pure filter from the filter air. (remove 4 fixingscrews)	
		2. Lift up the bio pure filter case to take the filter out.	

■ Outdoor Unit (24K, 28K)

No.	Part name	Procedures	Picture
①	Cabinet	1) Turn off the unit and remove the power cable. 2) Remove the top cover. 3) Remove the control box cover. 4) Unplug the ass'y cable. 5) Remove the cabi-side. 6) Remove the cabi-front. * When you assemble the parts, check if the each parts and electric connectors are fixed firmly.	
②	Fan Motor & Propeller Fan	1) Do Procedure 1 above. 2) Remove the nut flange. (Turn to the right to remove as it is a left turned screw) 3) Disassemble the propeller fan.	

■ Outdoor Unit (44K)

No.	Part name	Procedures	Picture
①	Cabinet	1) Turn off the unit and remove the power cable. 2) Remove the top cover. 3) Remove the control box cover. 4) Unplug the ass'y cable. 5) Remove the cabi-side. 6) Remove the cabi-front. * When you assemble the parts, check if the each parts and electric connectors are fixed firmly.	
②	Fan Motor & Propeller Fan	1) Do Procedure 1 above. 2) Remove the nut flange. (Turn to the right to remove as it is a left turned screw) 3) Disassemble the propeller fan.	

MEMO

3. Trouble Shooting

■ Trouble shooting by outdoor unit error code

ERROR CODE	ERROR DESCRIPTION	REFERENCE PART
E1	Indoor unit room thermistor error	EC01
E5	Indoor unit pipe thermistor error	EC02
E6	Outdoor unit thermistor error	EC03
E9	Float switch open error	EC04
EA	Communication error between indoor unit and outdoor unit	EC05
EC	Communication error between wired remote controller and indoor unit	EC06
ED	Outdoor unit pipe thermistor error	EC07
EL	Reverse power of 3 phase power source detected (3 phase model)	EC08

■ Trouble shooting by indoor unit receive board

ERROR CODE	ERROR CODE	REFERENCE PART
Reservation LED flickering(1Hz period)	Indoor temperature sensor abnormal	EC01
Operation LED and reservation LED flickering (1Hz period)	Indoor pipe temperature sensor abnormal	EC02
Operation LED and filter LED flickering (1Hz period)	Outdoor temperature sensor abnormal	EC03
Reservation LED filter LED alternating flickering (1Hz period)	Float switch open abnormal	EC04
Reservation LED and filter LED flickering (1Hz period)	Indoor and outdoor communication abnormal	EC05
Operation LED and reservation LED alternating flickering (1Hz period)	Wired remote controller communication abnormal	EC06
Filter LED flickering (1Hz period)	Outdoor pipe temperature sensor abnormal	EC07

■ Trouble shooting by outdoor unit error code

ERROR CODE	ERROR DESCRIPTION	REFERENCE PART
*1	Indoor unit room thermistor error	EC01
*5	Indoor unit pipe thermistor error	EC02
*6	Outdoor unit thermistor error	EC03
*9	Float switch open error	EC04
*A	Communication error between indoor unit and outdoor unit	EC05
*C	Communication error between wired remote controller and indoor unit	EC06
*D	Outdoor unit pipe thermistor error	EC07
*L	Three phase power incorrect connecting error (In case of three phase power models)	EC08

✻ The asterisk mark " * " + "ERROR" CODE of wired remote controller stands for the set number.
ex) ERROR CODE "39" is the FLOAT SWITCH OPEN ERROR of SET no.3.

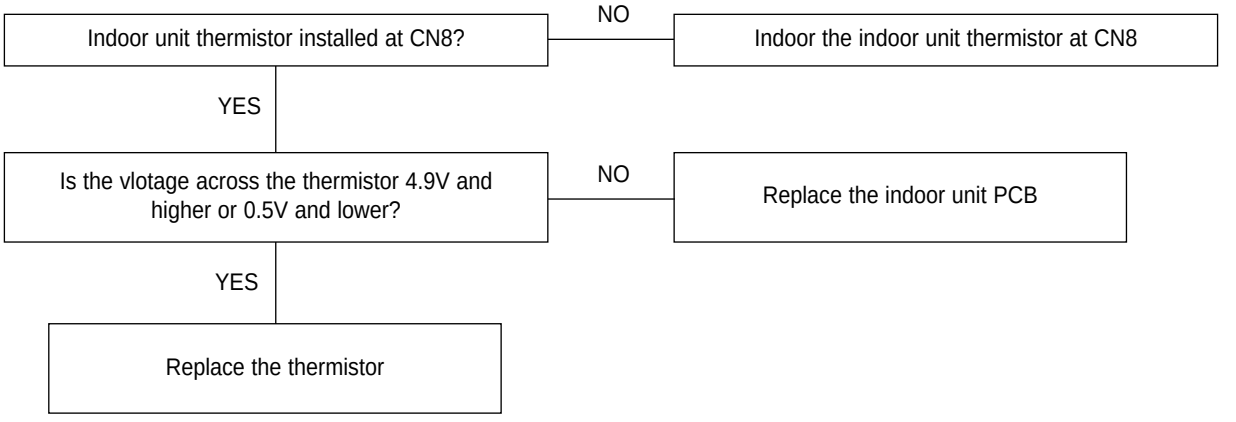
■ Trouble shooting by outdoor unit error code

ERROR CODE	ERROR DESCRIPTION	REFERENCE PART
LED flickering	Communication error between indoor unit and centralized controller	EC20

■ EC01 : Trouble on the thermistor related part of indoor unit.

- EC01 : Trouble on the room thermistor related part of indoor unit.
  - E1 of outdoor unit PCB 7-segment
  - Reservation lamp of wireless receiving board is flickering with 1 Hz.
  - Action items when "*1" displays on the wired remote controller.

Check point :
- Defect of indoor unit
- Indoor unit thermistor defect

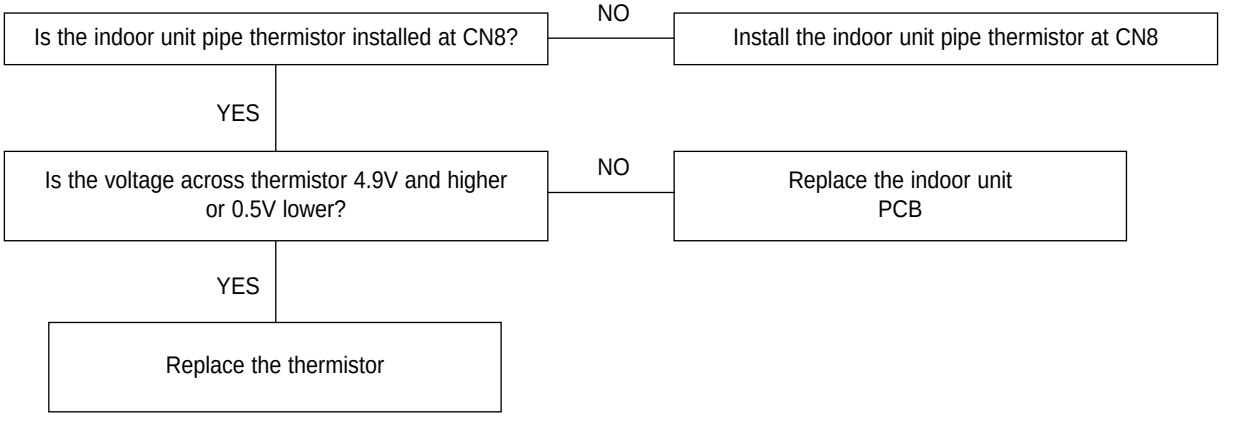

Indoor unit thermistor installed at CN8?
NO
Indoor the indoor unit thermistor at CN8
YES
Is the vlotage across the thermistor 4.9V and higher or 0.5V and lower?
NO
Replace the indoor unit PCB
YES
Replace the thermistor

✻ "*" stands for the indoor unit address.

■ EC02 : Trouble on the pipe thermistor related part of indoor unit.

- E5 of outdoor unit PCB 7-segment.
- Reservation lamp of wireless receiving board is flickering with 1 Hz.
- Action items when "*5" displays on the wired remote controller.

Check point :
- Indoor unit PCB defect
- Indoor unit pipe thermistor defect

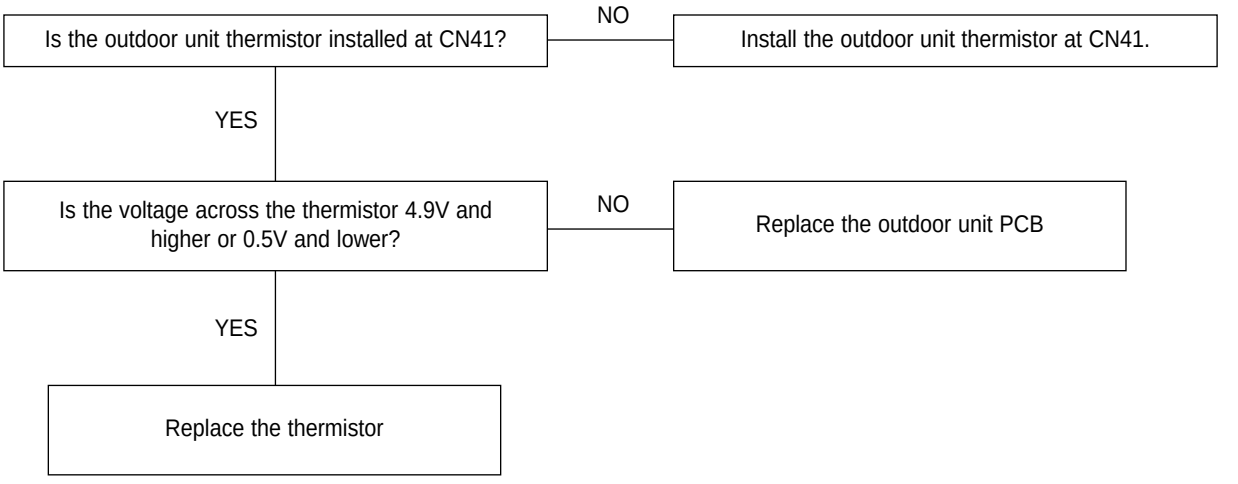

Is the indoor unit pipe thermistor installed at CN8?
NO
Install the indoor unit pipe thermistor at CN8
YES
Is the voltage across thermistor 4.9V and higher or 0.5V lower?
NO
Replace the indoor unit PCB
YES
Replace the thermistor

■ EC03 : When the trouble is found on the part related to the outdoor unit thermistor.

- E6 of outdoor unit PCB 7-segment
- Operation lamp and filter lamp of wireless receiving board are flickering with 1Hz.
- Action items when “*6” displays on the wired remote controller.

Check point :

- Defect of indoor unit
- Indoor unit thermistor defect


Is the outdoor unit thermistor installed at CN41?
NO
Install the outdoor unit thermistor at CN41.
YES
Is the voltage across the thermistor 4.9V and higher or 0.5V and lower?
NO
Replace the outdoor unit PCB
YES
Replace the thermistor

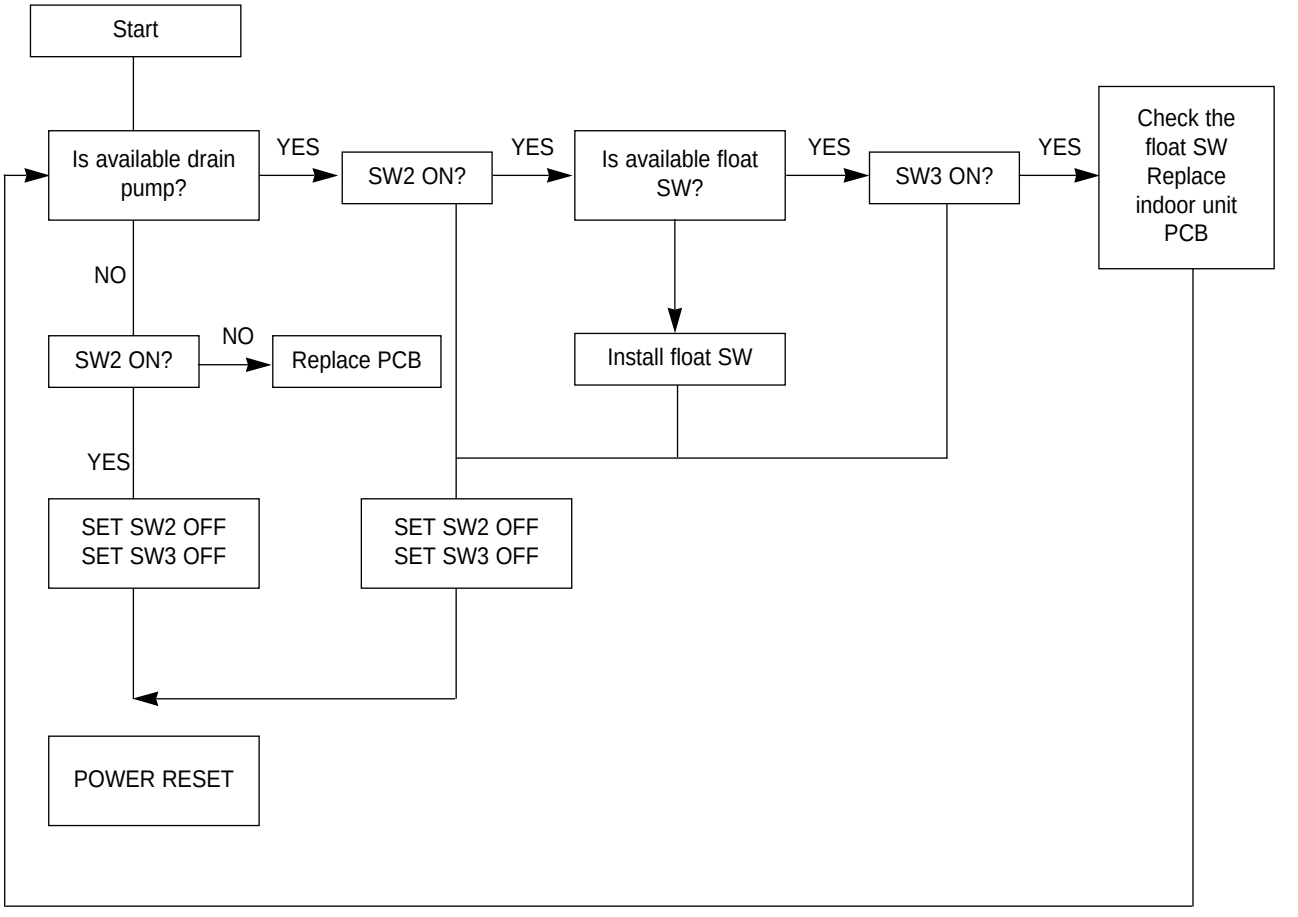
✻ “*” stands for the indoor unit address.

■ EC04 : When the trouble is found on the drain pump and float switch installed on the indoor unit.

EC01 : Trouble on the thermistor related part of indoor unit.
- E9 of 7-segment of outdoor unit PCB
- Reservation lamp of wireless receiving board and filter lamp are flickering with 1 Hz.
- Action item when “*9” displays on the wireless remote controller.

Check point :

- Indoor unit defect
- Drain pump, float switch defect



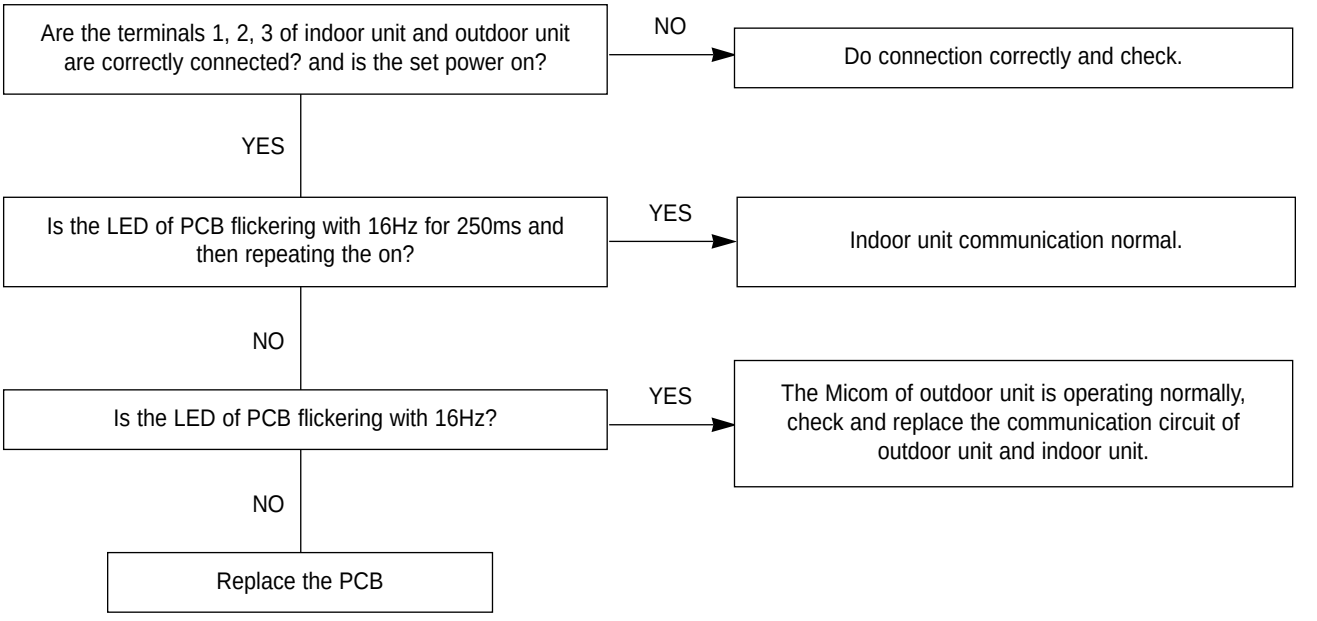
✻ “*” stands for the indoor unit address.

■ EC05 : When the trouble is found in the communication related part between indoor unit and outdoor unit.

- EA of 7-segment of outdoor unit PCB.
- Reservation lamp and filter lamp of wireless receiving board is flickering with 1 Hz.
- Action item when "*A" displays on the wired remote controller.

Check point :

- Indoor unit ↔ outdoor unit mis-connection
- Indoor unit PCB defect
- Outdoor unit PCB defect


Are the terminals 1, 2, 3 of indoor unit and outdoor unit are correctly connected? and is the set power on?
NO
Do connection correctly and check.
YES
Is the LED of PCB flickering with 16Hz for 250ms and then repeating the on?
YES
Indoor unit communication normal.
NO
Is the LED of PCB flickering with 16Hz?
YES
The Micom of outdoor unit is operating normally, check and replace the communication circuit of outdoor unit and indoor unit.
NO
Replace the PCB

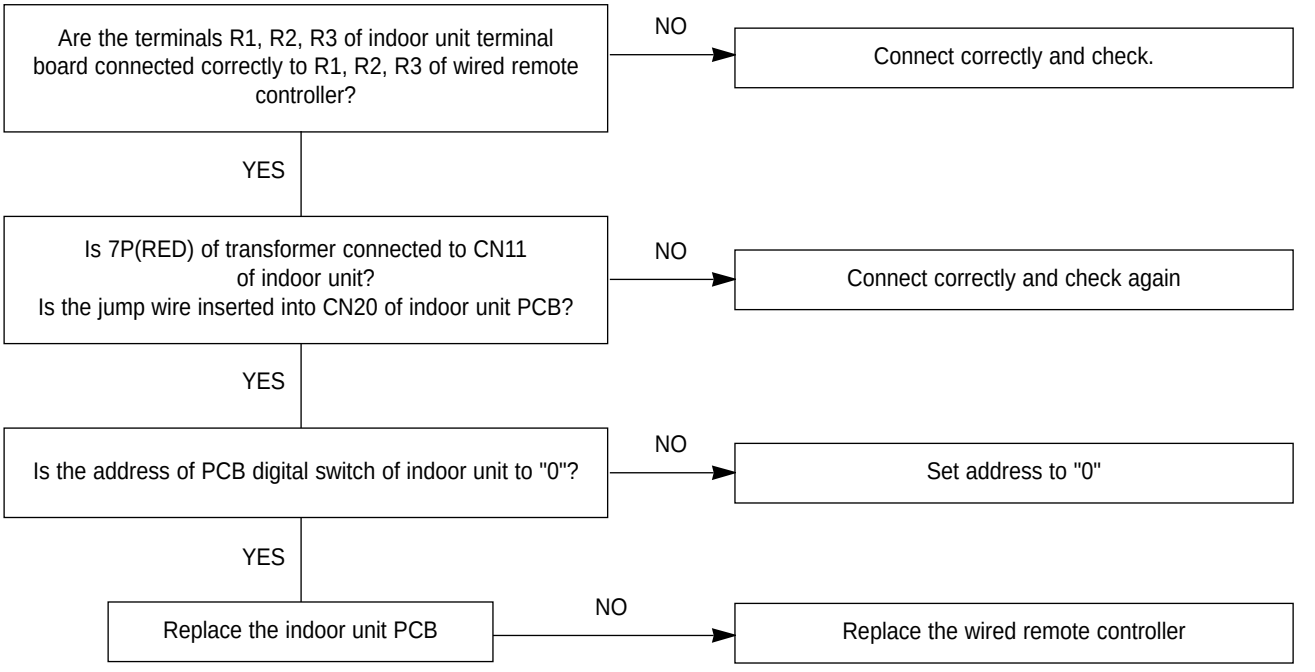
✻ "*" stands for the indoor unit address.

■ EC06 : When the trouble is found in the communication related part between indoor unit and wired remote controller. (during single operation, not group control)

- EC of 7-segment of outdoor unit PCB.
- Wireless receiving board lamp and reservation lamp is flickering with 1Hz.
- Action item when “C” displays on the wired remote controller.

Check point :

- Short circuit or mis-connection of the communication line between indoor unit and wireless remote controller
- Indoor unit PCB defect
- Wired remote controller PCB defect


Are the terminals R1, R2, R3 of indoor unit terminal board connected correctly to R1, R2, R3 of wired remote controller?
NO
Connect correctly and check.
YES
Is 7P(RED) of transformer connected to CN11 of indoor unit?
Is the jump wire inserted into CN20 of indoor unit PCB?
NO
Connect correctly and check again
YES
Is the address of PCB digital switch of indoor unit to "0"?
NO
Set address to "0"
YES
Replace the indoor unit PCB
NO
Replace the wired remote controller

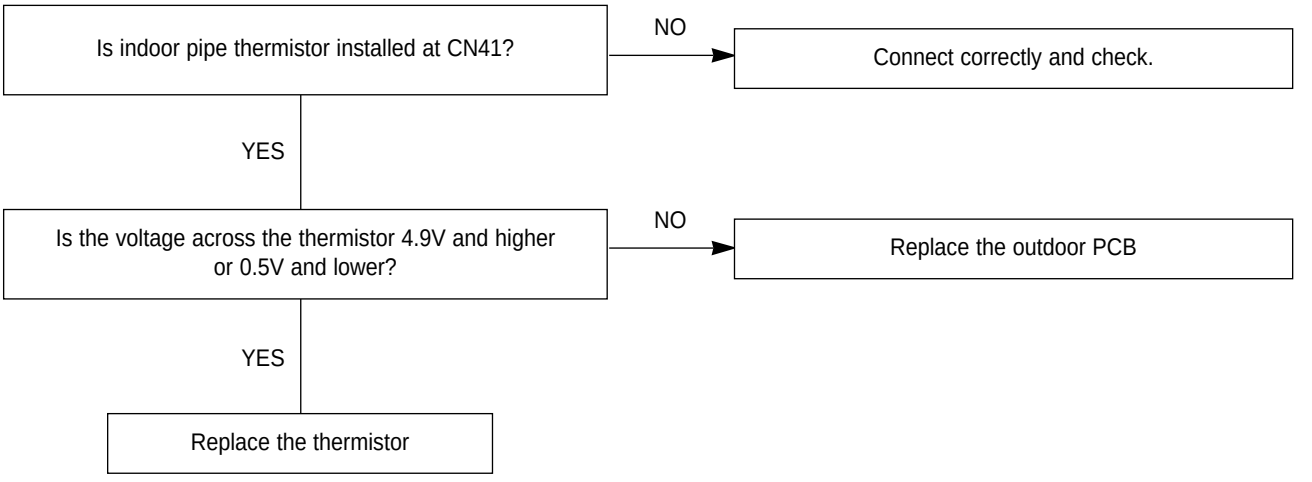
✻ “0” stands for the indoor unit address.

■ EC07 : When the trouble is found in the communication related part between outdoor unit pipe thermistor.

- ED of 7-segment of outdoor unit PCB.
- Reservation lamp and filter lamp of wireless receiving board is flickering with 1Hz.
- Action item when “D” displays on the wired remote controller.

Check point :

- Indoor unit pipe thermistor available or not
- Indoor unit PCB defect

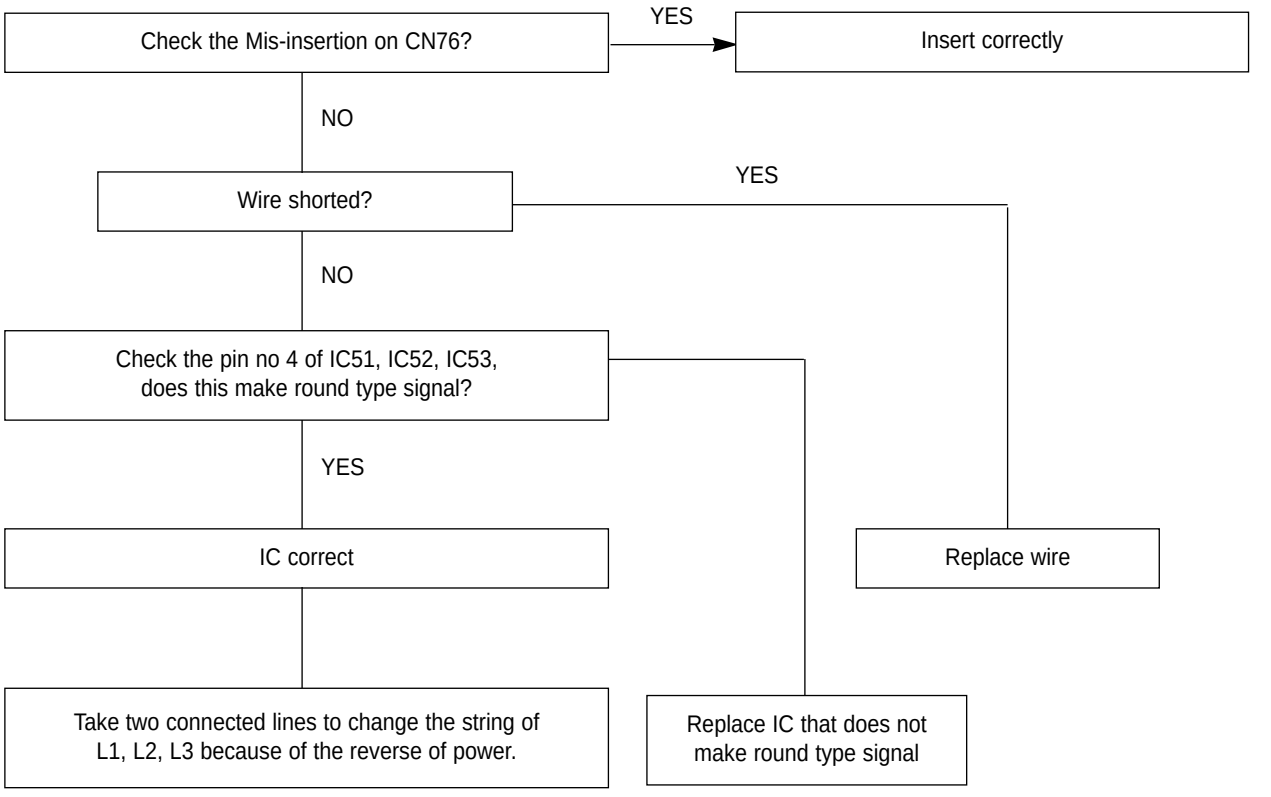


✻ “*” stands for the indoor unit address.

■ EC08 : When the reverse of three phase power is found.

Check point :

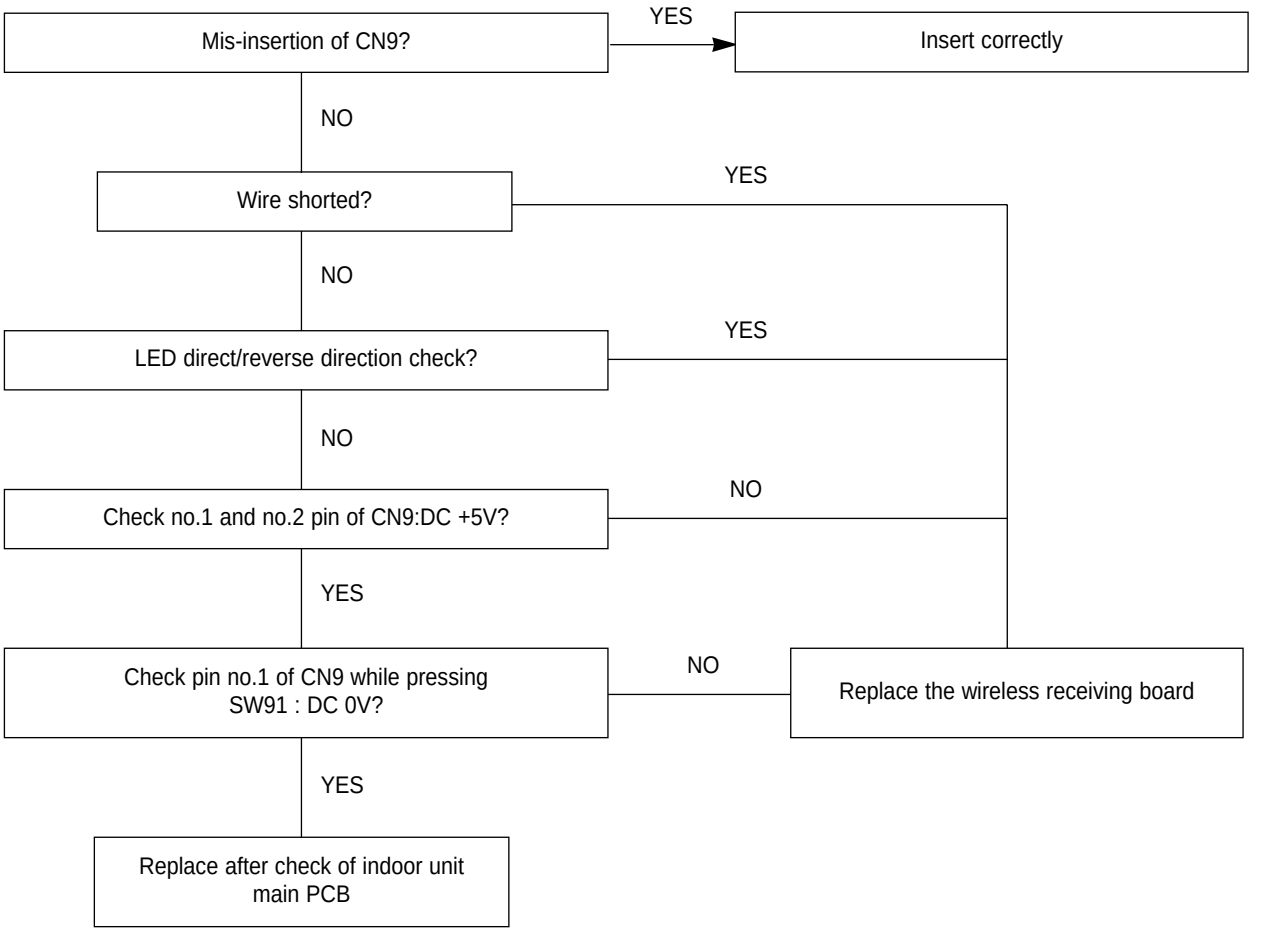
- Check CN76 to connect correctly.
- Check IC51, IC52, IC53 to connect correctly.



■ EC09 : When the trouble is found on the part related to the wireless receiving board of the indoor unit.

Check point :

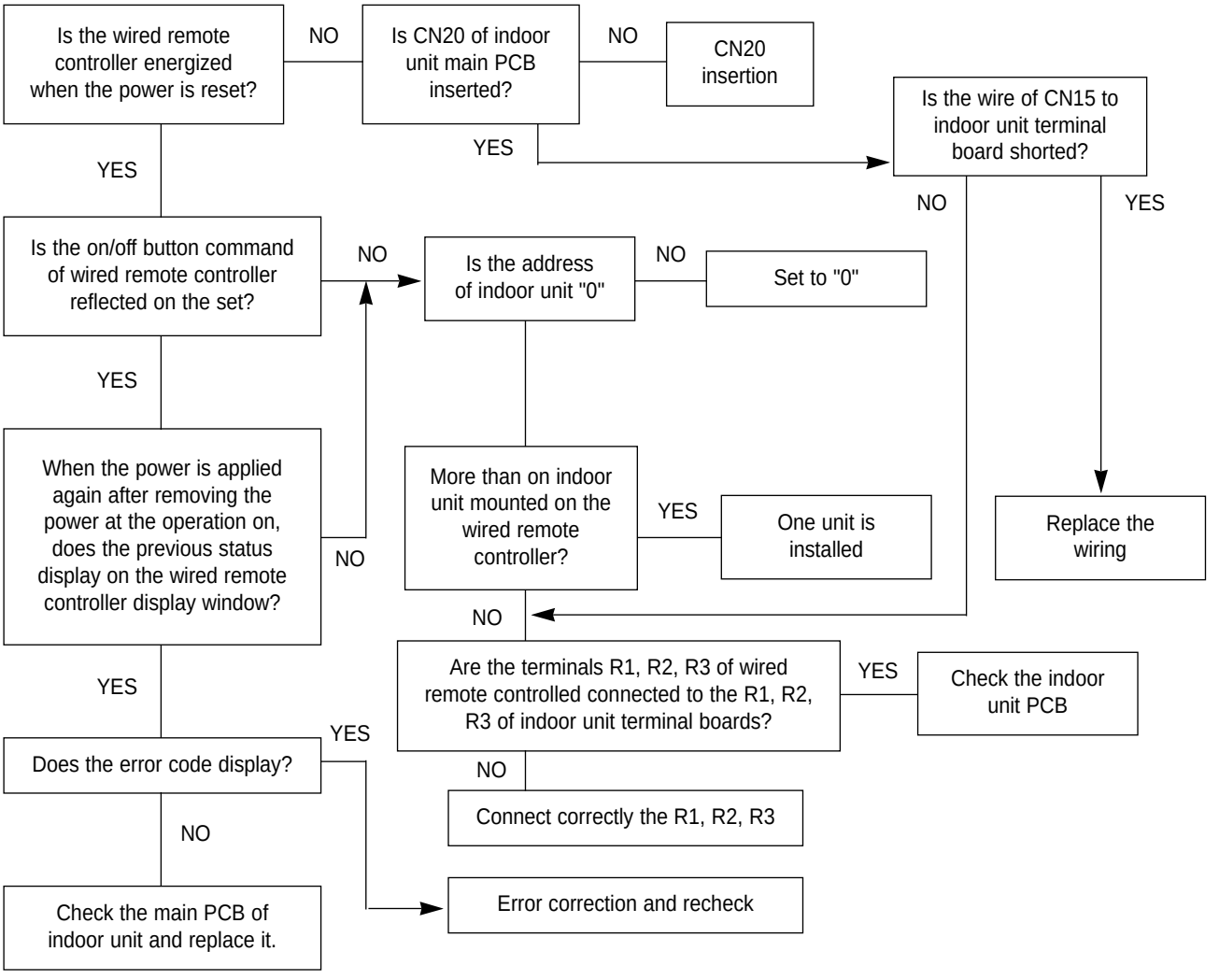
- Defect of wireless remote controller PCB
- Defect of wireless remote controller receiving board PCB
- Indoor unit PCB defect



■ EC10 : When the trouble is found on the part related to the wired remote controller. (single operation)

Check point :

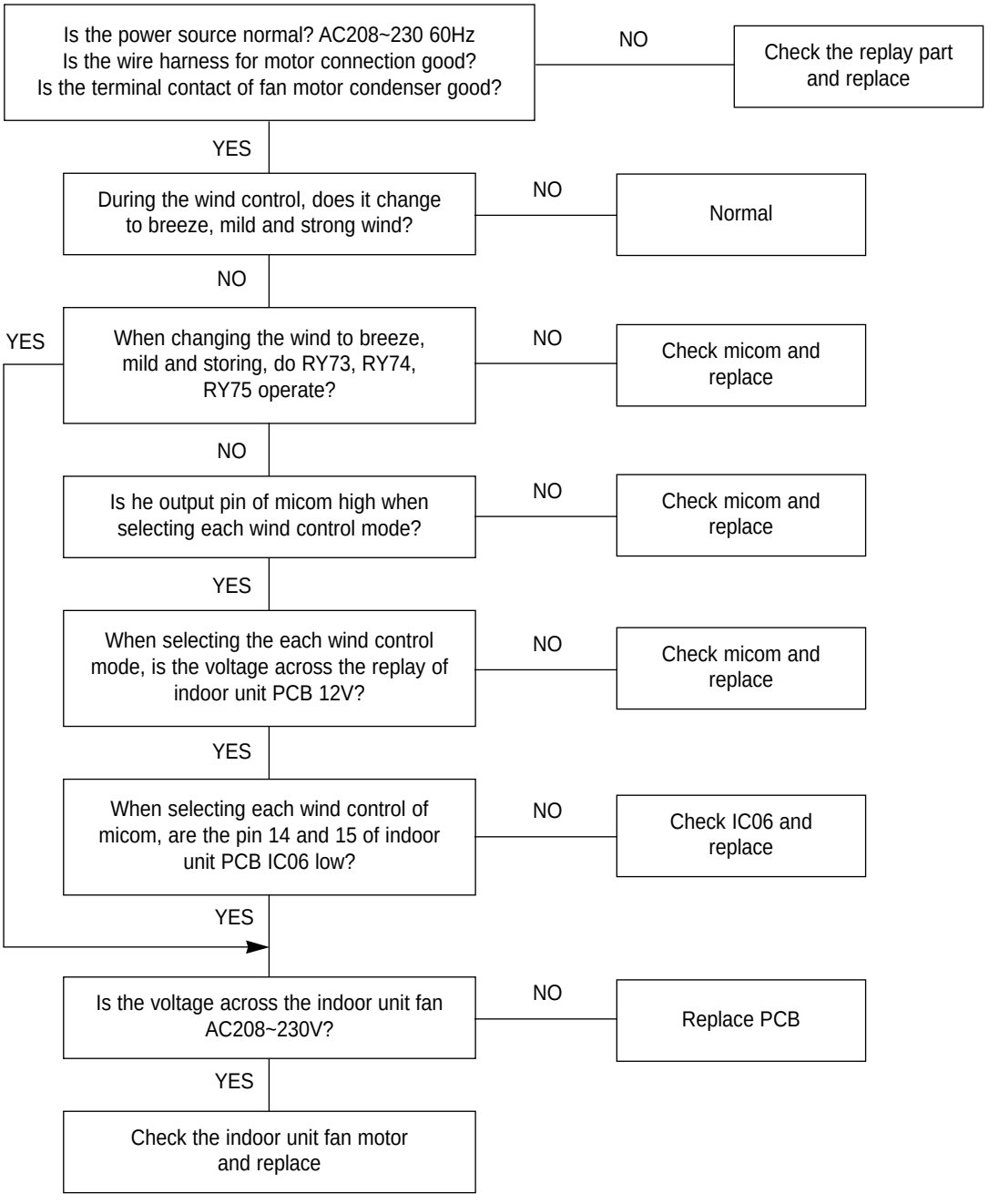
- Defect of communication line between indoor unit and wired remote controller.
- Output of indoor unit Micom
- Defect of wired remote controller PCB
- Indoor unit PCB defect


Is the wired remote controller energized when the power is reset?
NO
Is CN20 of indoor unit main PCB inserted?
NO
CN20 insertion
YES
Is the wire of CN15 to indoor unit terminal board shorted?
NO
YES
YES
Is the on/off button command of wired remote controller reflected on the set?
NO
Is the address of indoor unit "0"
NO
Set to "0"
YES
When the power is applied again after removing the power at the operation on, does the previous status display on the wired remote controller display window?
NO
More than on indoor unit mounted on the wired remote controller?
YES
One unit is installed
Replace the wiring
NO
YES
Are the terminals R1, R2, R3 of wired remote controlled connected to the R1, R2, R3 of indoor unit terminal boards?
YES
Check the indoor unit PCB
YES
Does the error code display?
NO
Connect correctly the R1, R2, R3
NO
Check the main PCB of indoor unit and replace it.
Error correction and recheck

■ EC11 : When the trouble is found on the part related to the fan motor of indoor unit.

Check point :

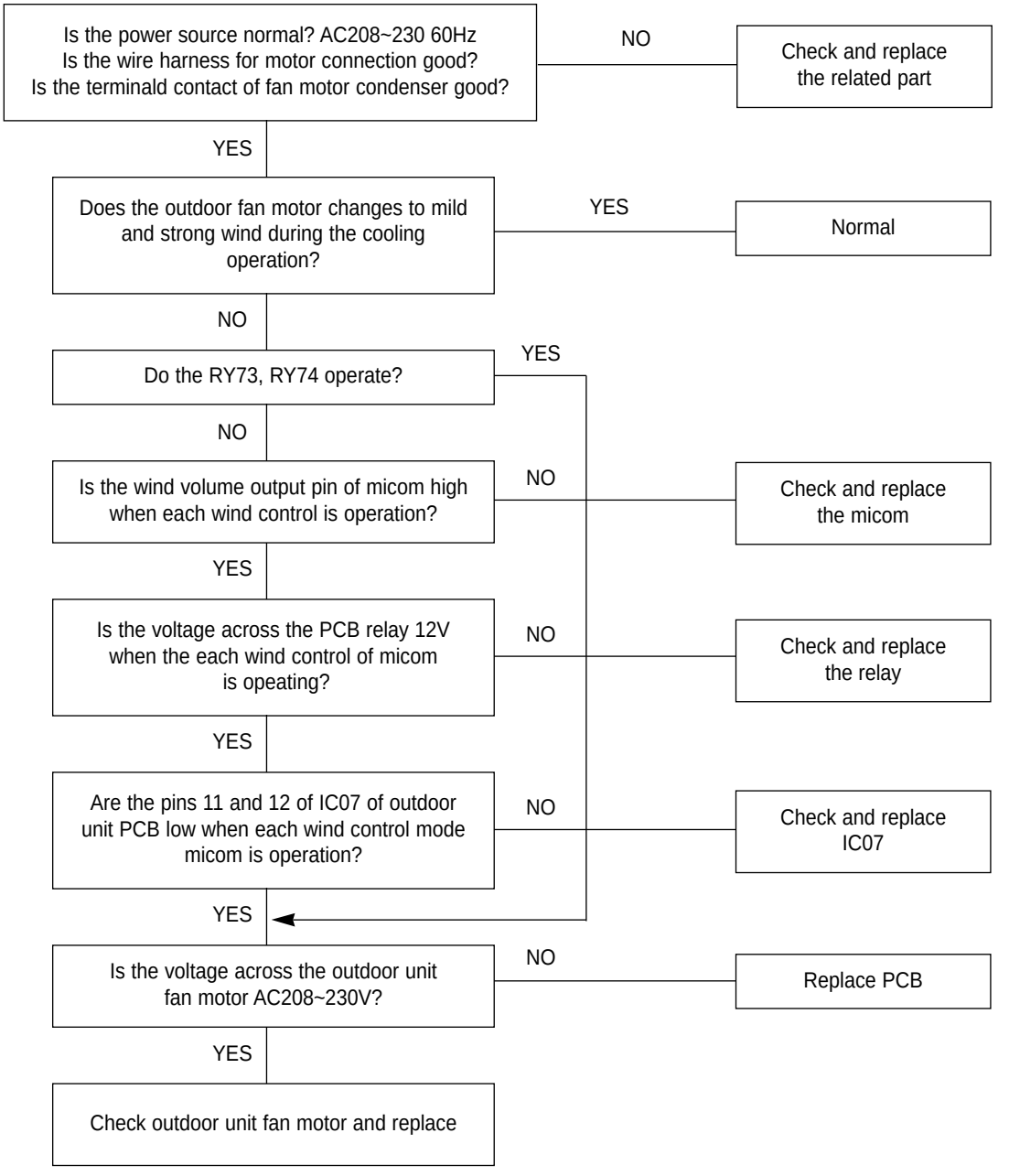
- Defect of PCB relay of indoor unit.
- Output of indoor unit Micom
- Indoor fan motor defect
- Defect of PCB IC06 of indoor unit


Is the power source normal? AC208~230 60Hz
Is the wire harness for motor connection good?
Is the terminal contact of fan motor condenser good?
NO
Check the replay part and replace
YES
During the wind control, does it change to breeze, mild and strong wind?
NO
Normal
NO
YES
When changing the wind to breeze, mild and storing, do RY73, RY74, RY75 operate?
NO
Check micom and replace
NO
Is he output pin of micom high when selecting each wind control mode?
NO
Check micom and replace
YES
When selecting the each wind control mode, is the voltage across the replay of indoor unit PCB 12V?
NO
Check micom and replace
YES
When selecting each wind control of micom, are the pin 14 and 15 of indoor unit PCB IC06 low?
NO
Check IC06 and replace
YES
Is the voltage across the indoor unit fan AC208~230V?
NO
Replace PCB
YES
Check the indoor unit fan motor and replace

■ EC12 : When the trouble is found on the part related to the fan motor of outdoor unit.

Check point :

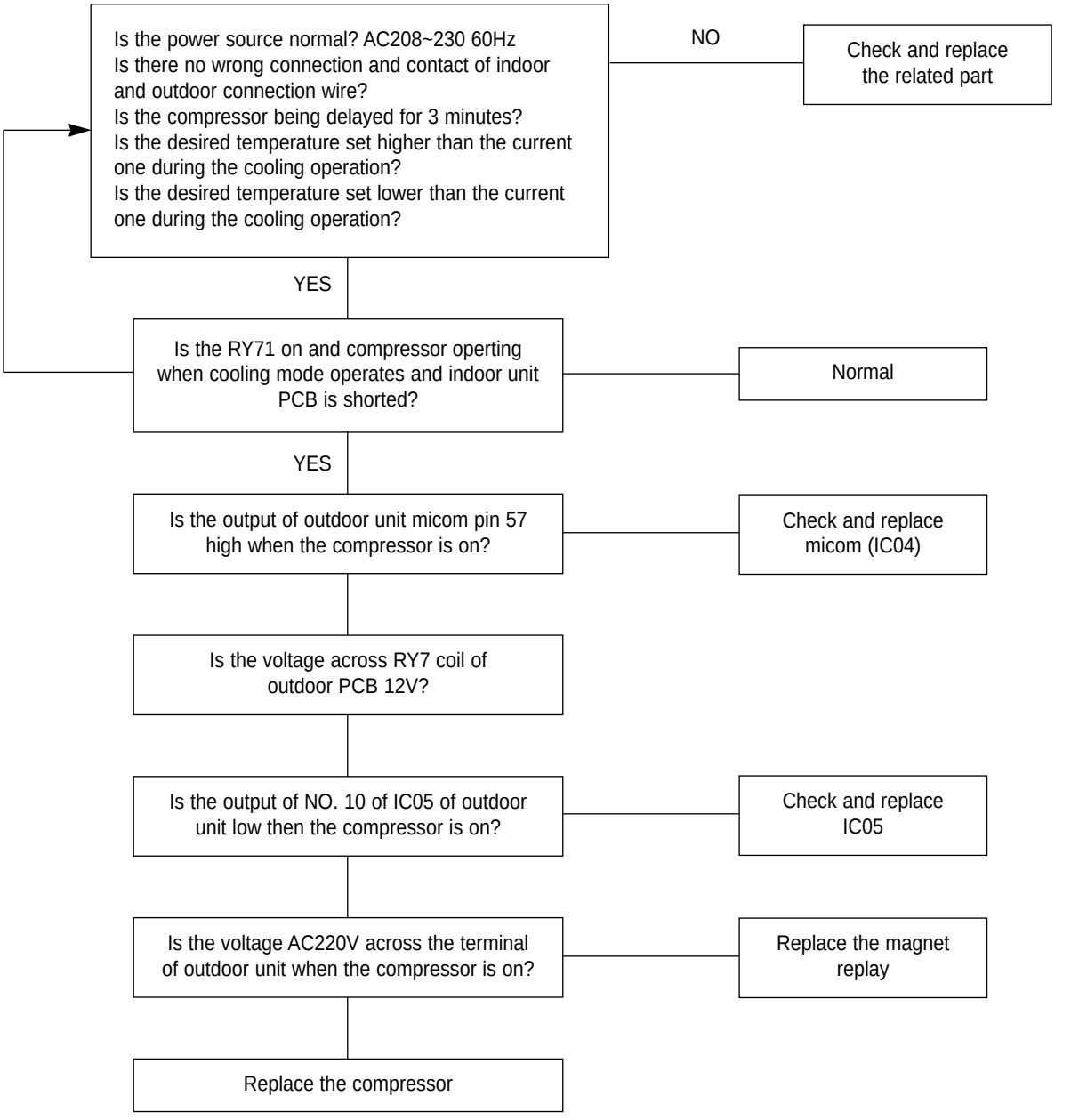
- Outdoor unit PCB relay defect
- Output of outdoor unit micom
- Outdoor unit fan motor defect
- Defect of IC07 of outdoor unit PCB


Is the power source normal? AC208~230 60Hz
Is the wire harness for motor connection good?
Is the terminald contact of fan motor condenser good?
NO
Check and replace the related part
YES
Does the outdoor fan motor changes to mild and strong wind during the cooling operation?
YES
Normal
NO
Do the RY73, RY74 operate?
YES
NO
Is the wind volume output pin of micom high when each wind control is operation?
NO
Check and replace the micom
YES
Is the voltage across the PCB relay 12V when the each wind control of micom is opeating?
NO
Check and replace the relay
YES
Are the pins 11 and 12 of IC07 of outdoor unit PCB low when each wind control mode micom is operation?
NO
Check and replace IC07
YES
Is the voltage across the outdoor unit fan motor AC208~230V?
NO
Replace PCB
YES
Check outdoor unit fan motor and replace

■ EC13 : When the trouble is found on the part related to comp of outdoor unit.

Check point :

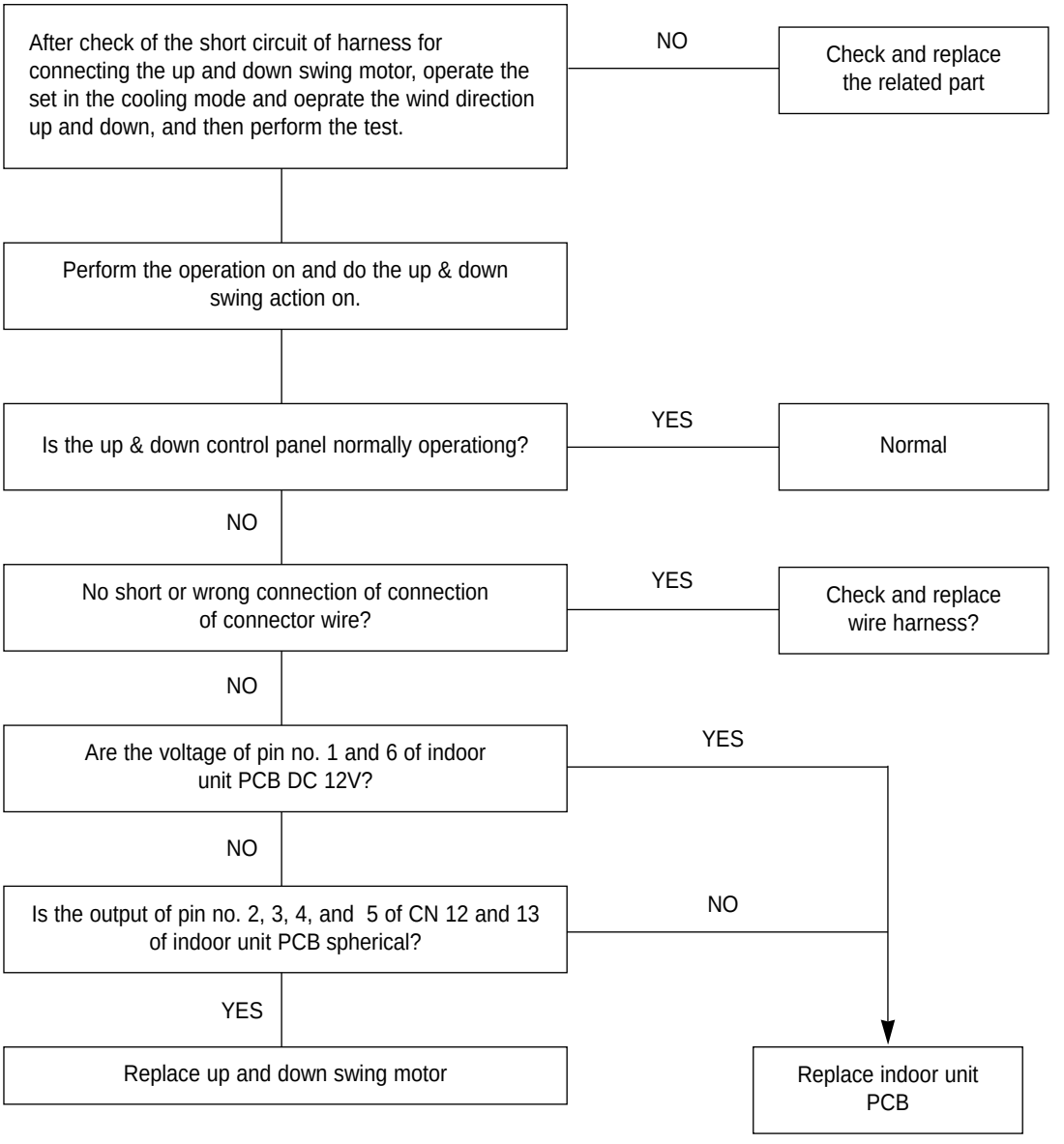
- Indoor unit PCB relay defect
- Output of indoor unit micom
- Comp defect
- Magnet switch defect


Is the power source normal? AC208~230 60Hz
Is there no wrong connection and contact of indoor and outdoor connection wire?
Is the compressor being delayed for 3 minutes?
Is the desired temperature set higher than the current one during the cooling operation?
Is the desired temperature set lower than the current one during the cooling operation?
NO
Check and replace the related part
YES
Is the RY71 on and compressor operting when cooling mode operates and indoor unit PCB is shorted?
Normal
YES
Is the output of outdoor unit micom pin 57 high when the compressor is on?
Check and replace micom (IC04)
Is the voltage across RY7 coil of outdoor PCB 12V?
Is the output of NO. 10 of IC05 of outdoor unit low then the compressor is on?
Check and replace IC05
Is the voltage AC220V across the terminal of outdoor unit when the compressor is on?
Replace the magnet replay
Replace the compressor

■ EC14 : When the trouble is found on the part related to the up & down swing motor of indoor unit (cassette model)

Check point :

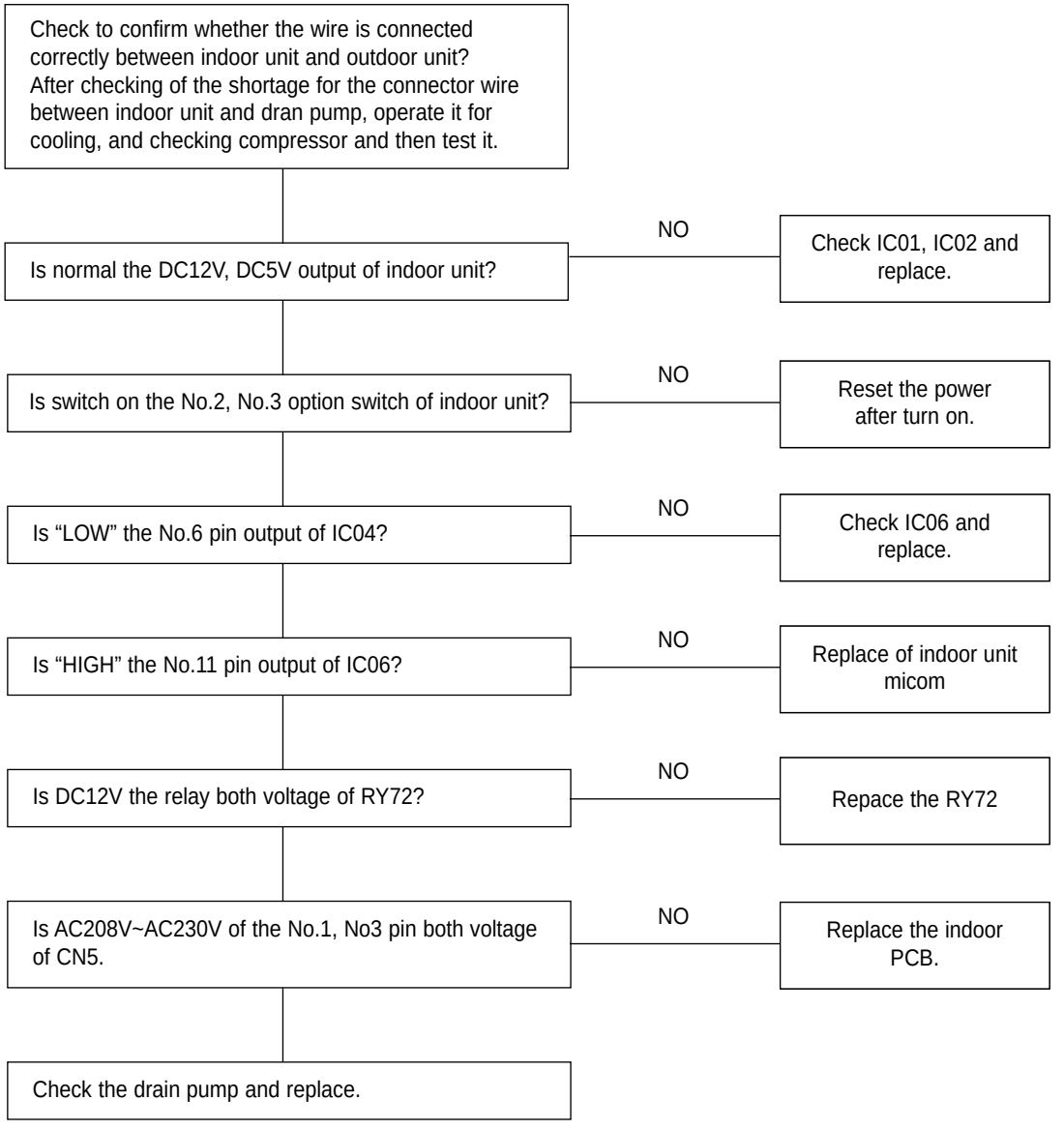
- Wire short between indoor unit PCB up & down swing motor connector or bad contact.
- Output of indoor unit micom
- Defect of up and down swing motor


After check of the short circuit of harness for connecting the up and down swing motor, operate the set in the cooling mode and oeprate the wind direction up and down, and then perform the test.
NO
Check and replace the related part
Perform the operation on and do the up & down swing action on.
Is the up & down control panel normally operationg?
YES
Normal
NO
No short or wrong connection of connection of connector wire?
YES
Check and replace wire harness?
NO
Are the voltage of pin no. 1 and 6 of indoor unit PCB DC 12V?
YES
NO
Is the output of pin no. 2, 3, 4, and 5 of CN 12 and 13 of indoor unit PCB spherical?
NO
YES
Replace up and down swing motor
Replace indoor unit PCB

■ EC15 : When the trouble is found on the part related to drain pump of indoor unit.

Check point :

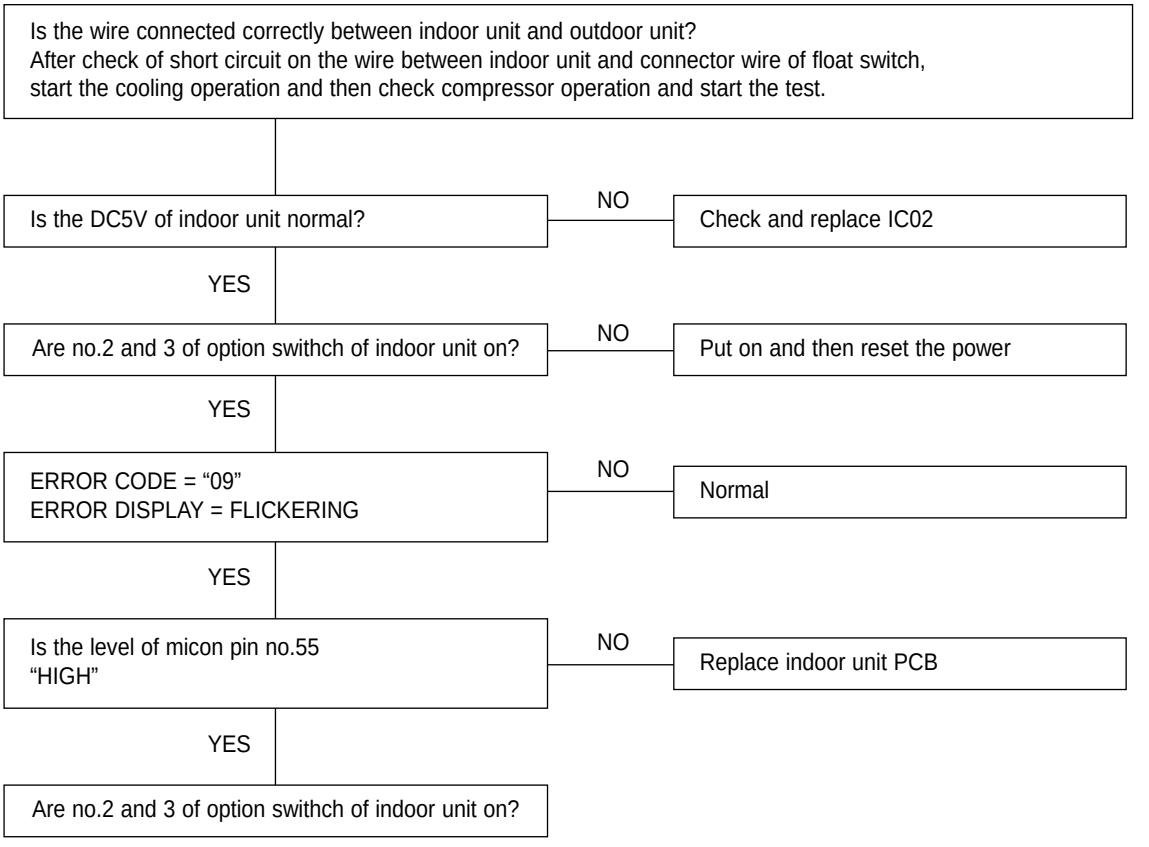
- Indoor unit PCB ↔ Drain pump connector wire, indoor unit Micom No.6 Pin output, IC06 No.6 Pin output.
- Drain pump, RY72, DC12V power, AC208~230V 60Hz power, indoor unit option switch.


Check to confirm whether the wire is connected correctly between indoor unit and outdoor unit? After checking of the shortage for the connector wire between indoor unit and dran pump, operate it for cooling, and checking compressor and then test it.
Is normal the DC12V, DC5V output of indoor unit?
NO
Check IC01, IC02 and replace.
Is switch on the No.2, No.3 option switch of indoor unit?
NO
Reset the power after turn on.
Is “LOW” the No.6 pin output of IC04?
NO
Check IC06 and replace.
Is “HIGH” the No.11 pin output of IC06?
NO
Replace of indoor unit micom
Is DC12V the relay both voltage of RY72?
NO
Repace the RY72
Is AC208V~AC230V of the No.1, No3 pin both voltage of CN5.
NO
Replace the indoor PCB.
Check the drain pump and replace.

■ EC16 : When the trouble is found on the part related to float switch of indoor unit.

Check point :

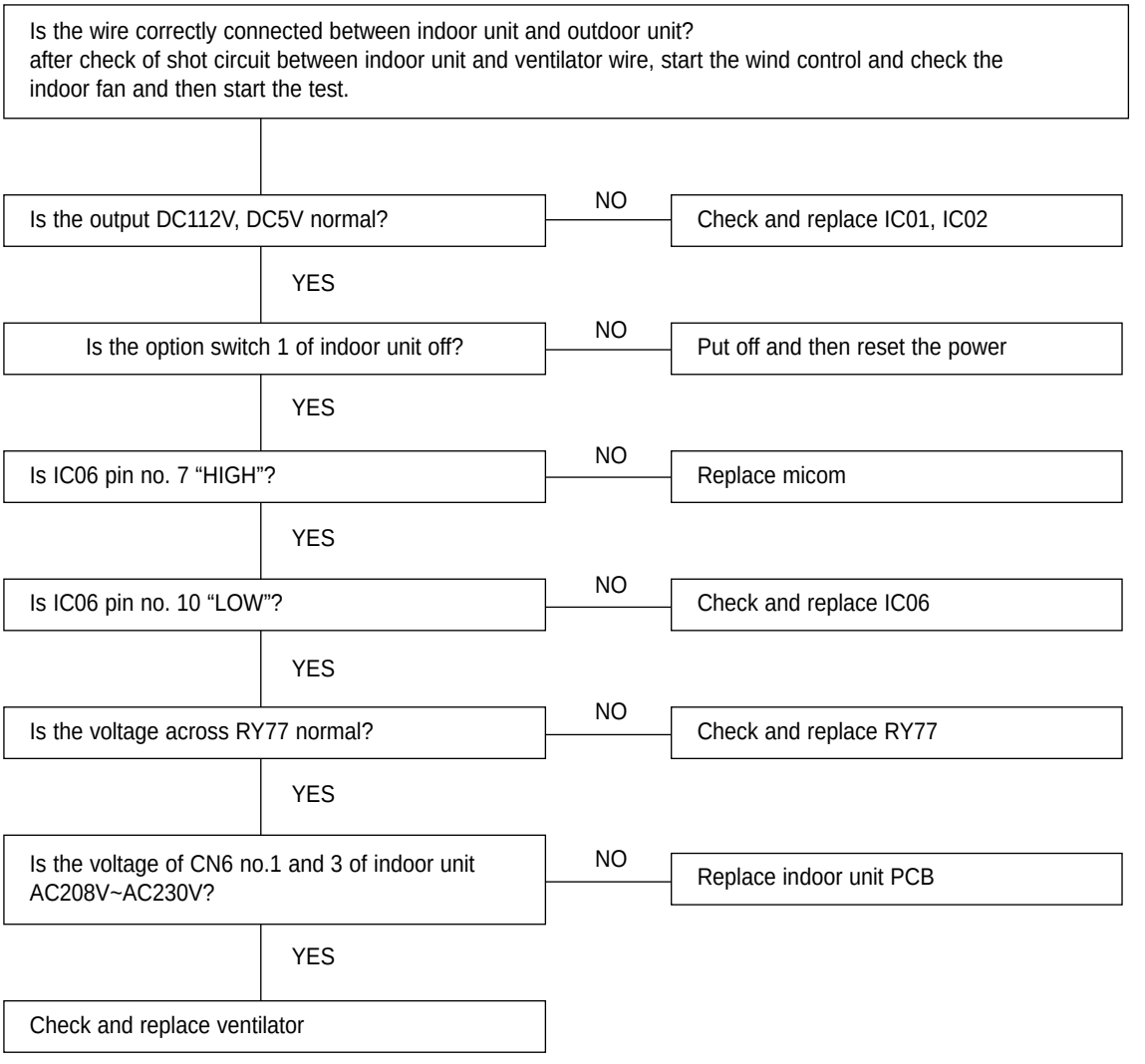
- Indoor unit PCB ↔ float switch connector wire, voltage level of indoor unit micom pin no. 55
- Float switch, DC 5V power, indoor unit option switch


Is the wire connected correctly between indoor unit and outdoor unit?
After check of short circuit on the wire between indoor unit and connector wire of float switch, start the cooling operation and then check compressor operation and start the test.
Is the DC5V of indoor unit normal?
NO
Check and replace IC02
YES
Are no.2 and 3 of option swithch of indoor unit on?
NO
Put on and then reset the power
YES
ERROR CODE = “09”
ERROR DISPLAY = FLICKERING
NO
Normal
YES
Is the level of micon pin no.55 “HIGH”
NO
Replace indoor unit PCB
YES
Are no.2 and 3 of option swithch of indoor unit on?

■ EC17 : When the trouble is found on the part related to ventilator of indoor unit.

Check point :

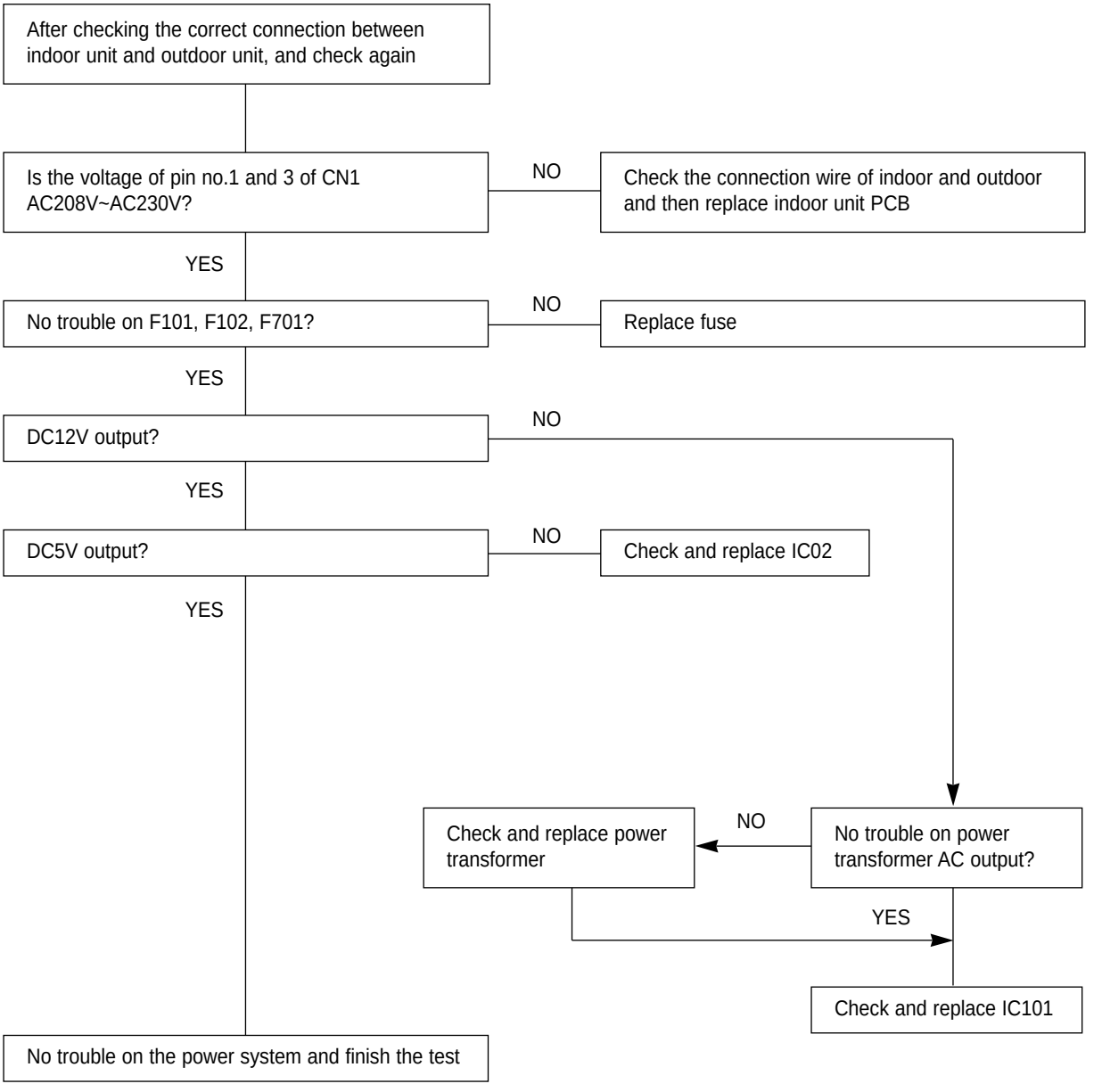
- Indoor unit PCB ↔ ventilator connector wire, output voltage of indoor unit micom pin No. 5
- Ventilator, DC 12V power, DC5V power, indoor unit option switch.


Is the wire correctly connected between indoor unit and outdoor unit?
after check of shot circuit between indoor unit and ventilator wire, start the wind control and check the indoor fan and then start the test.
Is the output DC112V, DC5V normal?
NO
Check and replace IC01, IC02
YES
Is the option switch 1 of indoor unit off?
NO
Put off and then reset the power
YES
Is IC06 pin no. 7 “HIGH”?
NO
Replace micom
YES
Is IC06 pin no. 10 “LOW”?
NO
Check and replace IC06
YES
Is the voltage across RY77 normal?
NO
Check and replace RY77
YES
Is the voltage of CN6 no.1 and 3 of indoor unit AC208V~AC230V?
NO
Replace indoor unit PCB
YES
Check and replace ventilator

■ EC18 : When the trouble is found on the part related to power system of indoor unit.

Check point :

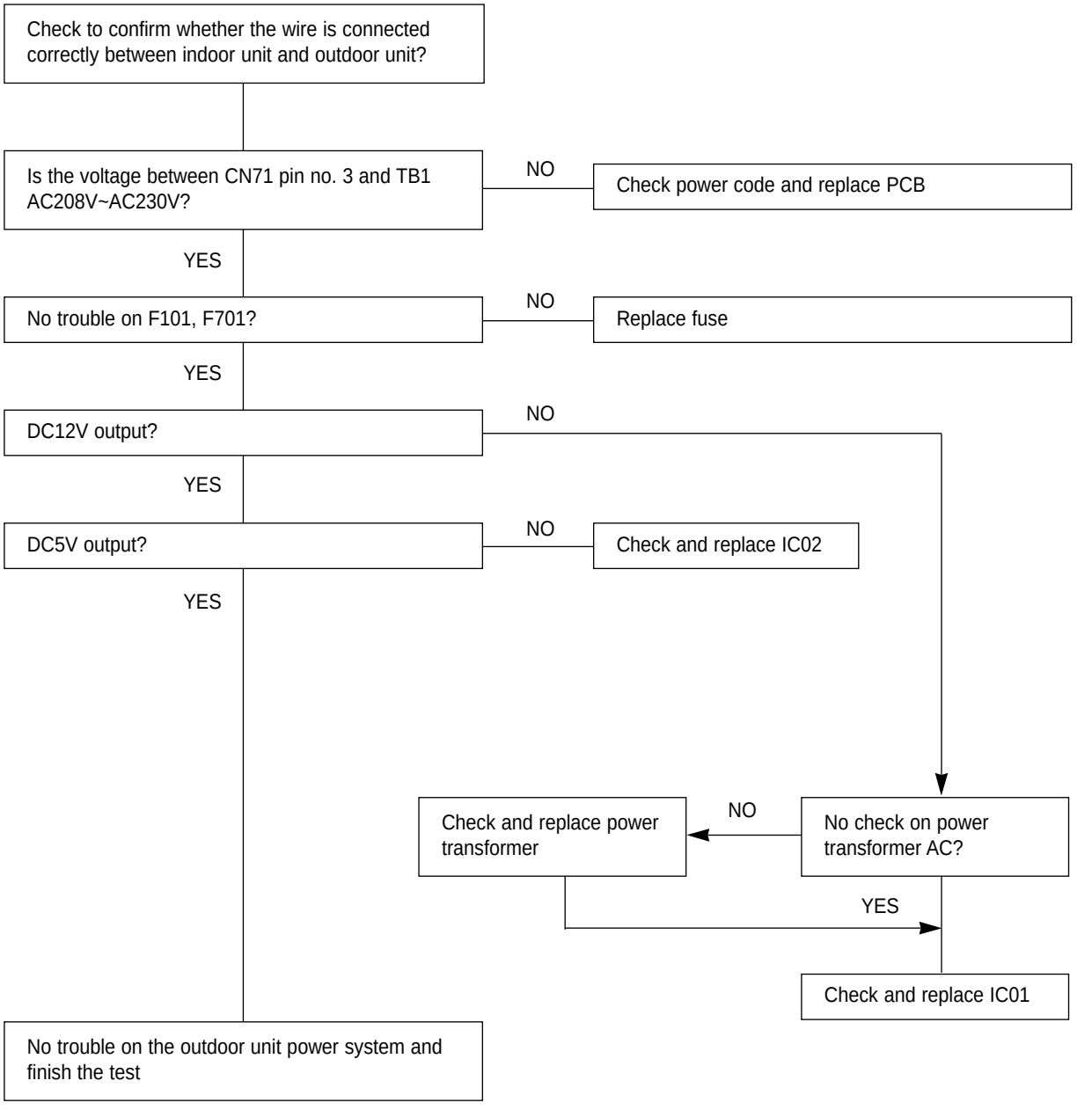
- Indoor unit AC208V~AC230V input voltage, DC12V output, DC5V output, output voltage of pin no.2 and 3 of CN15.
- Power transformer, F101, F102, F701


After checking the correct connection between indoor unit and outdoor unit, and check again
Is the voltage of pin no.1 and 3 of CN1 AC208V~AC230V?
NO
Check the connection wire of indoor and outdoor and then replace indoor unit PCB
YES
No trouble on F101, F102, F701?
NO
Replace fuse
YES
DC12V output?
NO
YES
DC5V output?
NO
Check and replace IC02
YES
Check and replace power transformer
NO
No trouble on power transformer AC output?
YES
Check and replace IC101
No trouble on the power system and finish the test

■ EC19 : When the trouble is found on the part related to power system of output unit.

Check point :

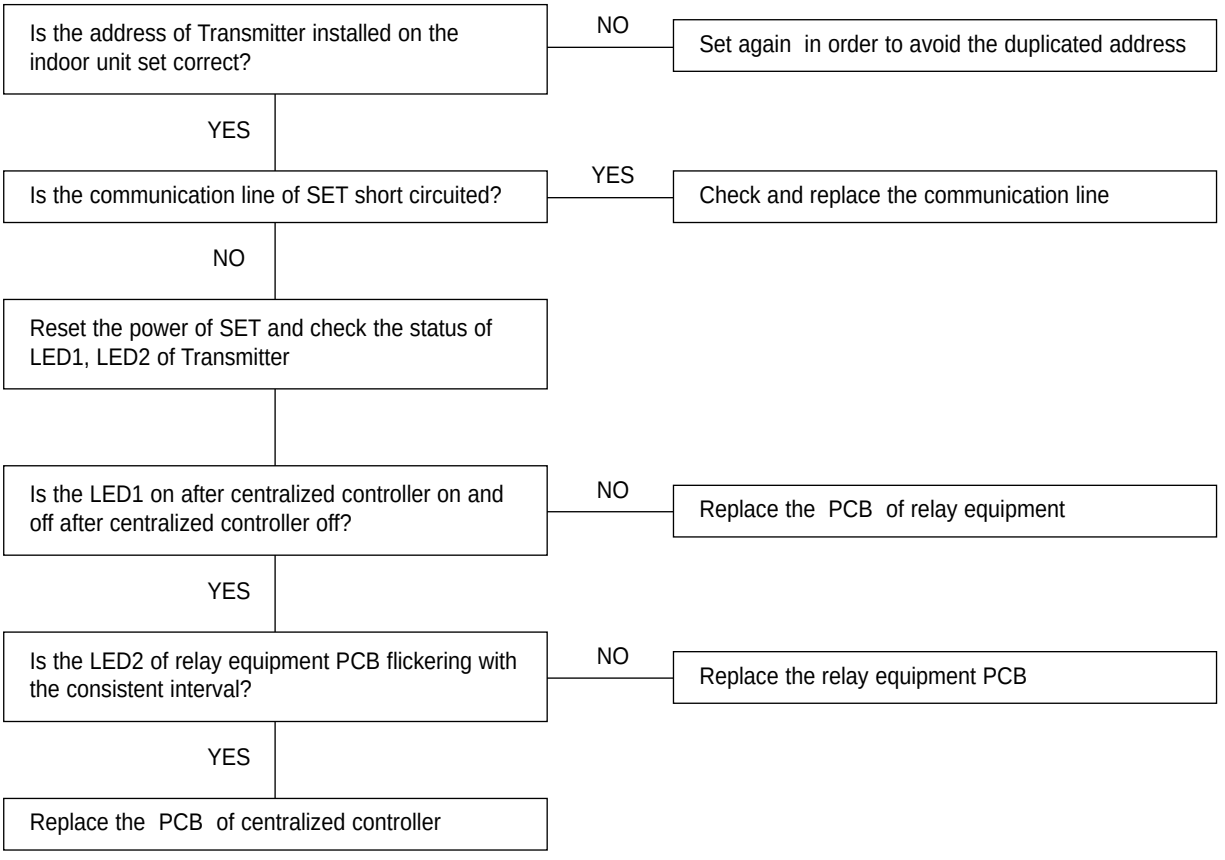
- Outdoor unit AC208V~AC230V input power, DC12V output, DC5V output
- Power transformer, F101, F701



■ EC20 : When the centralized controller lamp is flickering. (during centralized control)

Check point :

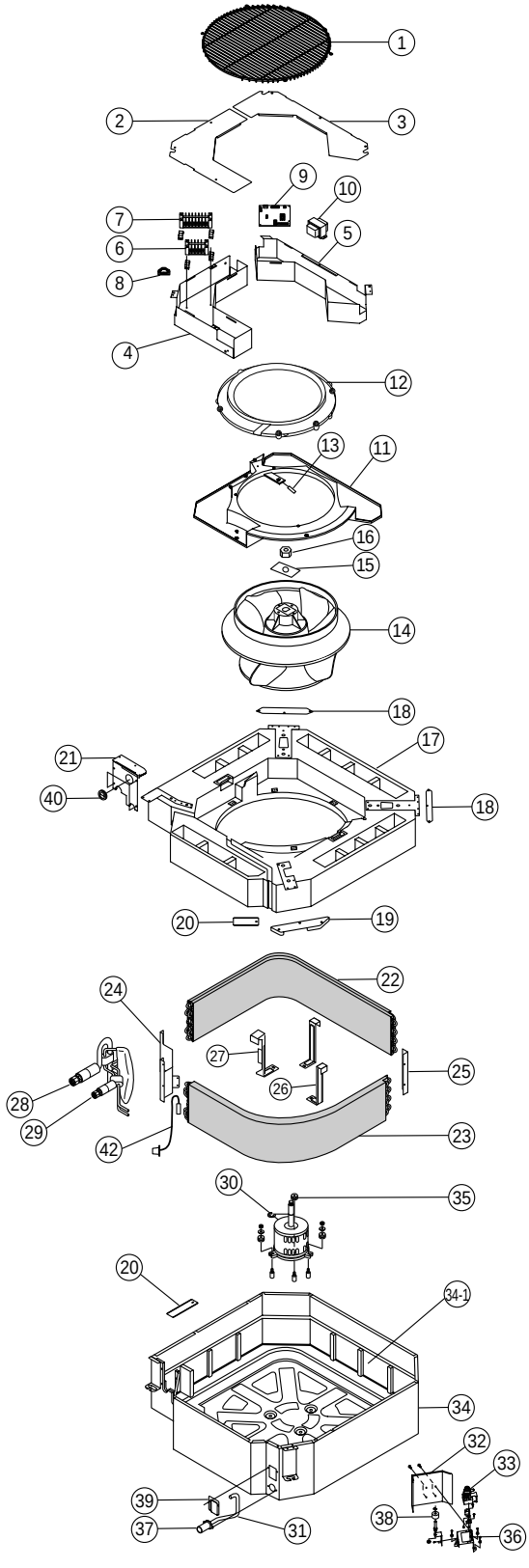
- Defect on the address assignment for the relay equipment connected with centralized controller.
- Defect on centralized controller PCB
- Defect on the indoor unit PCB


Is the address of Transmitter installed on the indoor unit set correct?
NO
Set again in order to avoid the duplicated address
YES
Is the communication line of SET short circuited?
YES
Check and replace the communication line
NO
Reset the power of SET and check the status of LED1, LED2 of Transmitter
Is the LED1 on after centralized controller on and off after centralized controller off?
NO
Replace the PCB of relay equipment
YES
Is the LED2 of relay equipment PCB flickering with the consistent interval?
NO
Replace the relay equipment PCB
YES
Replace the PCB of centralized controller

MEMO

4. Exploded Views and Part LIst

4-1 Indoor Unit

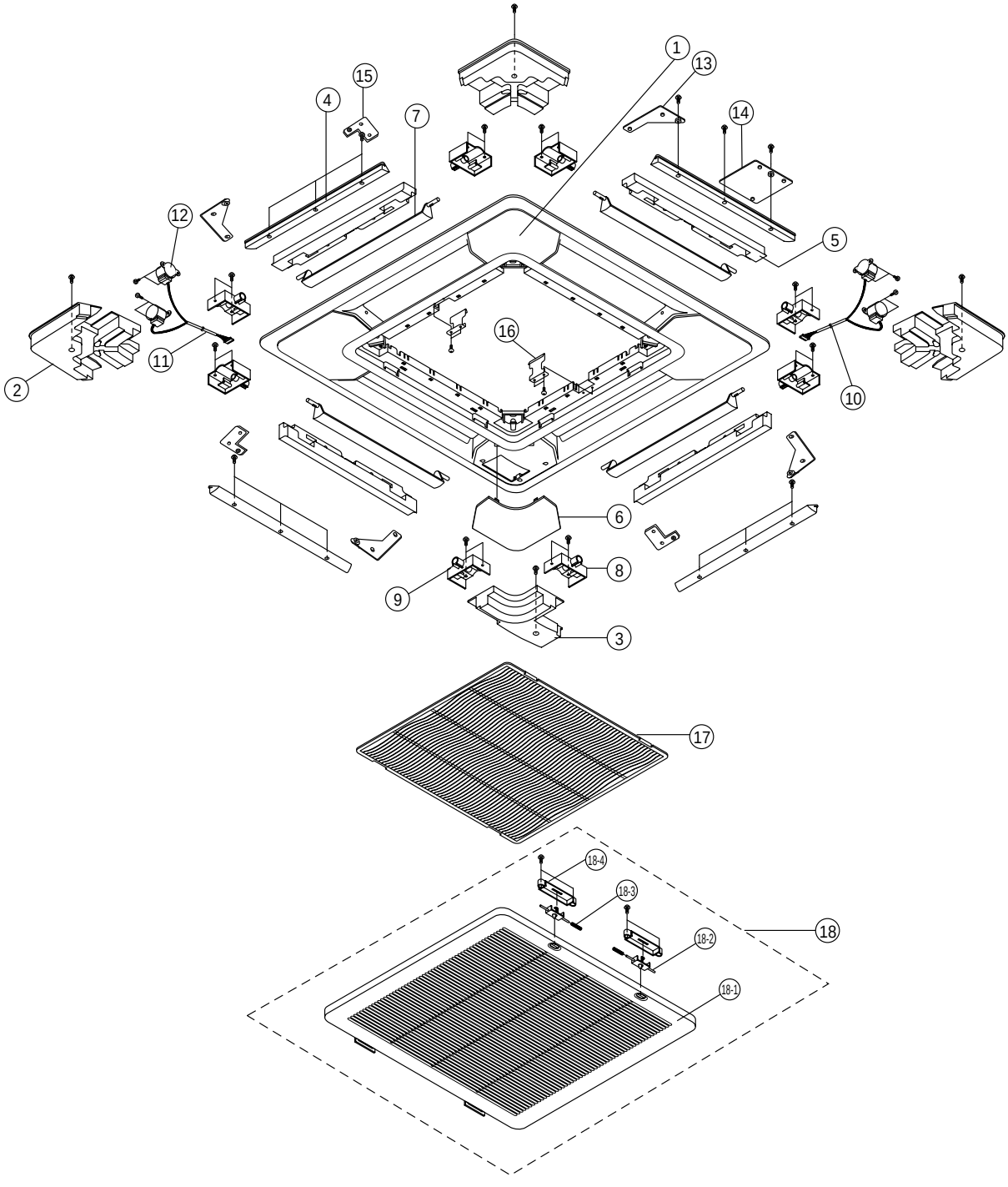


■ Part List (Indoor Unit)

No.	Code No.	Description	Specification	Q'TY				
				ACC2400C	ACC2800C	ACH2400C	ACH2800C	ACC4400C
1	DB63-00058A	GUARD-SAFETY	SGCCM,T0.8	1	1	1	1	1
2	DB63-00050A	COVER-CONTROL	SGCCM,T0.7	1	1	1	1	1
3	DB63-00049A	COVER-PCB	SGCCM,T0.7	1	1	1	1	1
4	DB90-00127A	ASSY CASE-CONTROL	ASS'Y	1	1	1	1	1
5	DB90-00128A	ASSY-CASE-PCB	ASS'Y	1	1	1	1	1
6	DB65-00029A	TERMINAL-BOARD-5P	250V20A,5P	1	1	1	1	1
7	DB65-00029K	TERMINAL-BOARD-8P	250V20A,8P	1	2	3	4	4
8	DB61-40291B	HOLDER WIRE	PP,T2.0	1	1	1	1	1
9	PD-DH3200-01	ASSY PCB PARTS	ASS'Y PCB	-	-	1	1	-
	PD-DH3200-02	ASSY PCB PARTS	ASS'Y PCB	1	1	-	-	1
10	DB26-00002A	TRANS-POWER	250V,50HZ	1	1	1	1	1
11	DB67-00020A	FAN BELL MOUTH SUB	PP,OD530	1	1	1	1	-
	DB67-00082A	FAN BELL MOUTH SUB	PP,OD530	-	-	-	-	1
12	DB67-00019A	FAN-BELL MOUTH	PS,OD530,AG240E,BLK	1	1	1	1	1
13	DB32-00067A	THERMISTOR IN PCB	103AT,10K,25,-20~100,3435K	1	1	1	1	1
14	DB94-00071A	ASSY FAN-TURBO	SAN GF20%	1	1	1	1	1
15	DB90-00106A	ASSY-HOLDER-FAN	AG240E,PI460	1	1	1	1	1
16	6021-000131	NUT HEXAGON	2C.M12	1	1	1	1	1
17	DB94-00076A	ASSY-CUSHION DRAIN	CH18CA,4WAY-CASSETTE	1	1	1	1	1
18	DB64-00055A	CABINET-GUIDE A	SGCCM,T0.8	2	2	2	2	2
19	DB64-00056A	CABINET-GUIDE B	SGCCM,T0.8	1	1	1	1	1
20	DB61-00134A	BRACKET-WIRE	SGCCM,T0.8	2	2	2	2	2
21	DB61-00571B	BRACKET-COVER OUT B	SGCC-M,T0.8,W190,L140.5	1	1	1	1	1
22	DB96-00546A	ASSY EVAP-LF	3 x 8 1.5SLIT	-	1	1	1	-
	DB75-00025A	ASSY EVAP-LF	2 x 8 1.4 SLIT	1	-	-	-	-
	DB96-00326A	ASSY EVAP-LF	3 x 10 1.5SLIT	-	-	-	-	1
23	DB96-00547A	ASSY EVAP-RH	3 x 8 1.5SLIT		1	1	1	1
	DB75-00024A	ASSY EVAP-RH	2 x 8 1.4 SLIT	1	-	-	-	-
	DB96-00325A	ASSY EVAP-RH	3 x 10 1.5 SLIT	-	-	-	-	1
24	DB67-00100A	PARTITION-FRONT EVAP	SGCC-M,T0.8	-	1	1	1	-
	DB67-00023A	PARTITION-FRONT EVAP	SGCC-M,T0.8, ACC2400C	1	-	-	-	-
	DB67-00024A	PARTITION-FRONT EVAP	SGCC-M,T0.8, ACC4400C	-	-	-	-	1
25	DB67-00101A	PARTITION-BACK EVAP	SGCC-M,T0.8	-	1	1	1	-
	DB67-00021A	PARTITION-BACK EVAP	SGCC-M,T0.8, ACC2400C	1	-	-	-	-
	DB67-00022A	PARTITION-BACK EVAP	SGCC-M,T0.8, ACC4400C	-	-	-	-	1
26	DB61-00453A	HOLDER-EVAP	SGCCM,T0.8	-	2	2	2	-
	DB61-00131A	HOLDER-EVAP	SGCCM,T0.8	2	-	-	-	-
	DB61-00142A	HOLDER-EVAP	SGCCM,T0.8	-	-	-	-	2
27	DB61-00573A	GUIDE AIR-EVAP	SGCC-M,T0.8	-	4	4	4	-
	DB61-00231A	GUIDE AIR-EVAP	SGCC-M,T0.8	4	-	-	-	-
	DB61-00251A	GUIDE AIR-EVAP	SGCC-M,T0.8	-	-	-	-	4
28	DB96-01232A	ASSY TUBE-COLLECTOR	ACC-23ZA3,C1220T	-	1	-	1	-
	DB96-00767A	ASSY TUBE-COLLECTOR	ACE-18ZA3A,C1220T	-	-	1	-	-
	DB96-00164A	ASSY TUBE-COLLECTOR	ACC2400C, CI220T	1	-	-	-	-
	DB96-01384A	ASSY TUBE-COLLECTOR	ACC-35ZA3, CI220T	-	-	-	-	1
29	DB96-01233A	ASSY TUBE-INLET PART	ACE-23ZA3A,CI220T	-	-	-	1	-
	DB96-01470A	ASSY TUBE-INLET PART	ACC-23ZA3,C1220T	-	1	-	-	-
	DB96-00768A	ASSY TUBE-INLET PART	ACE-18ZA3A,C1220T	-	-	1	-	-
	DB96-00389A	ASSY TUBE-INLET PART	ACC2400C	1	-	-	-	-
	DB96-01480A	ASSY TUBE-INLET PART	ACC-35ZA3	-	-	-	-	1
30	DB31-00026E	MOTOR FAN	OSM-516SAC(S803),CASSETTE	1	1	1	1	-
	DB31-00096B	MOTOR FAN	OSM-976SAC(S812),CASSETTE	-	-	-	-	1
31	DB62-00627A	HOSE DRAIN	ACH2400C,ID12.5,-,BLK,-,-,CASSETTE-TYPE	1	1	1	1	1
32	DB67-00027A	PARTITION-DRAIN PUMP	SGCCM ,T0.7,AG240E,-	1	1	1	1	-
	DB67-00025A	PARTITION-DRAIN PUMP	SGCCM ,T0.7,CH44ZA	-	-	-	-	1
33	DB66-00148A	PUMP-DRAIN	STEEL,75*78,110.5,-,KS1001SACO23	1	1	1	1	1
34	DB90-00628A	ASSY CABI-WELD	CH18ZA,4WAY-CASSETTE	1	1	1	1	-
	DB90-00628B	ASSY CABI-WELD	CH44ZA,4WAY-CASSETTE	-	-	-	-	1
34-1	DB90-00097A	ASSY-BASE-CUSHION	AG-240E,ASSY	1	1	1	1	1
35	DB71-00059A	PLATE MOTOR	SGCC-M, T1.0	2	2	2	2	-
36	DB61-00120A	BRACKET-PUMP	SGCCM,T2.0,-,AG240E,-	1	1	1	1	-
	DB61-00121A	BRACKET-PUMP	SGCCM,T2.0,-,CH44ZA	-	-	-	-	1
37	DB67-00018A	DRAIN-HOSE SOCKET	ABS,-,AG240E,-	1	1	1	1	1
38	DB95-00082A	ASSY-SENSOR-FLOAT	AG-240E,WS-1H L43	1	1	1	1	1
39	DB63-00059A	COVER-DRAIN PUMP	SGCCM,T0.8,-,-,AG440G	1	1	1	1	1
41	2301-001371	CAPACITOR	4.5UF	-	-	-	1	1
	2301-001379	CAPACITOR	4.0UF	-	1	-	-	-
	2301-001369	CAPACITOR	3.0UF	-	-	1	-	-
	2301-001370	CAPACITOR	2.5UF	1	-	-	-	-
	2301-001367	CAPACITOR	6.0UF	-	-	-	-	1
42	DB32-00066A	THERMISTOR IN EVAP		1	1	1	1	1

4-2 Panel Front Disassembly Diagram

■ Panel Front

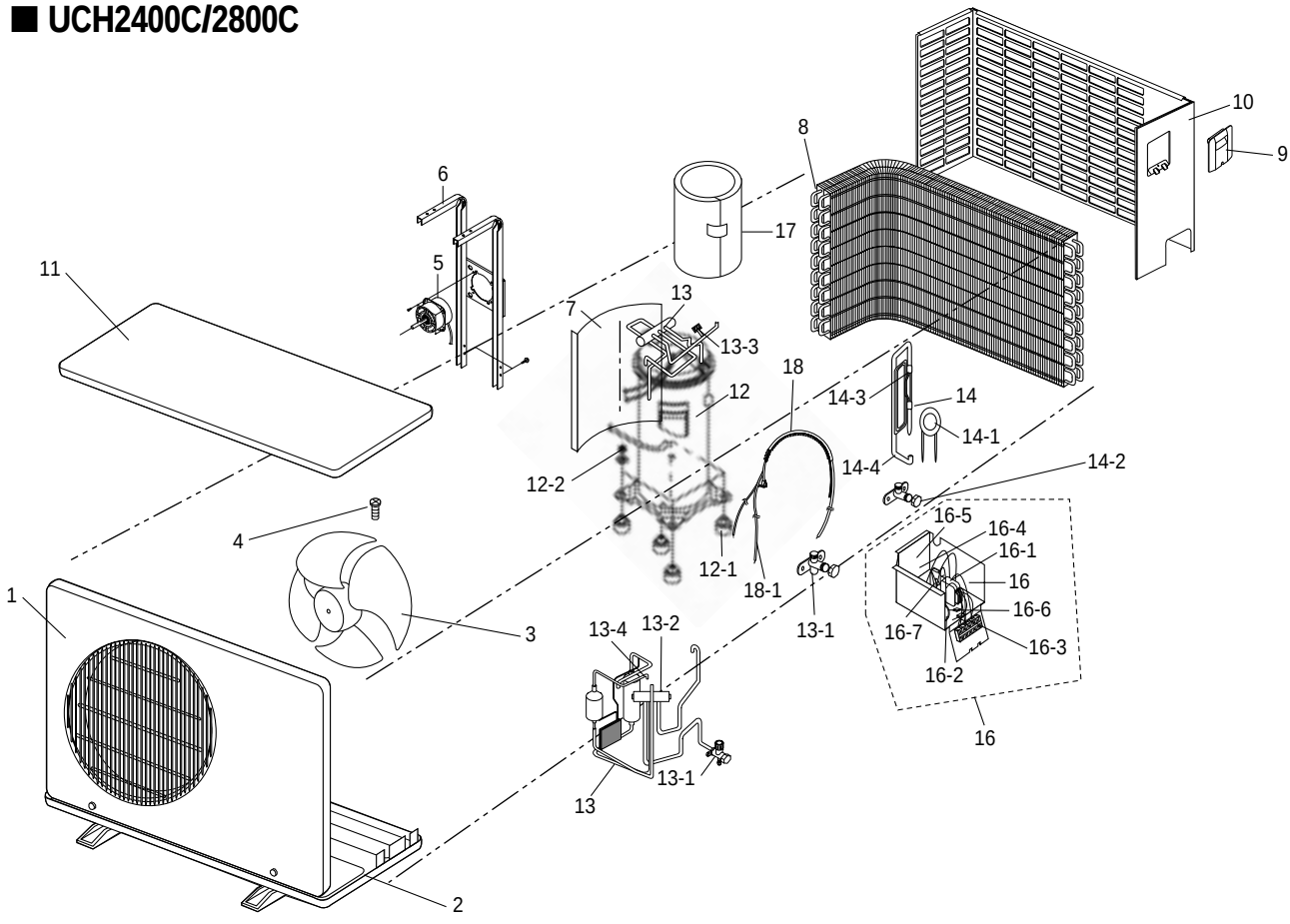


■ ASSY PANEL PART LIST(KCV)

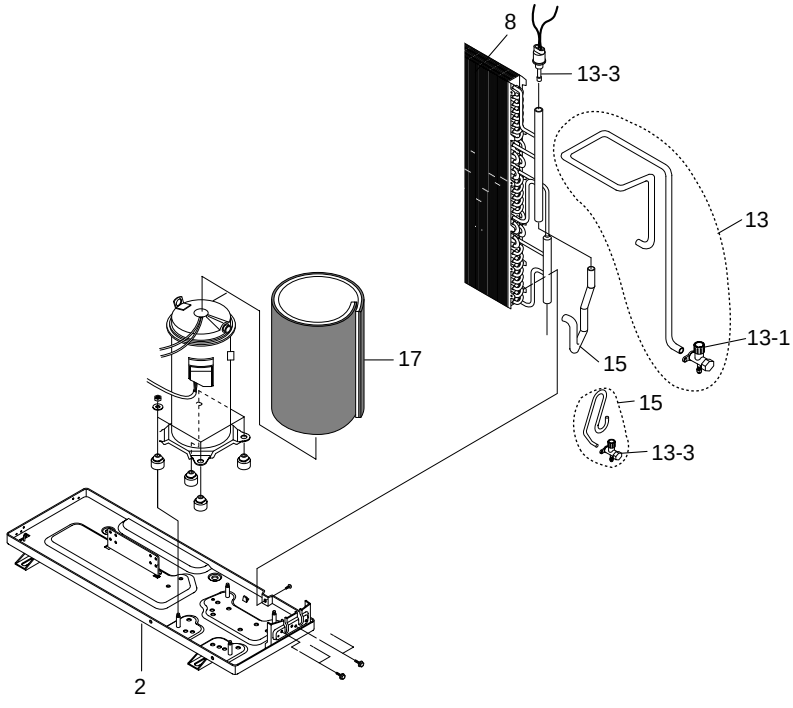
No.	Code No.	Description	Specification	Q'TY	Remarks
				IFS095G05/KCV	
1	DB64-00051A	PANEL-FRONT	HIPS	1	
2	DB69-00091A	CUSHION-SIDE-A	EPS, L182, W182, T38.5, W30	3	
3	DB69-00092A	CUSHION-SIDE-B	EPS, L182, W182, T34.6, W20	1	
4	DB69-00093A	CUSHION-A	EPS, L526, W28, T18.4, W9	4	
5	DB69-00094A	CUSHION-B	EPS, L490, W66, T37.5, W33	4	
6	DB63-00041A	COVER-FRONT	HIPS	1	
7	DB66-00029C	BLADE	T4.0, PPS(GF)	4	
8	DB61-00107A	HOUSING-MOTOR L	HIPS	4	
9	DB61-00108A	HOUSING-MOTOR R	HIPS	4	
10	DB39-00078A	CONNECT WIRE-MOTOR	AWG24/10, AWG#24, 400, PLAT	1	
11	DB39-00079A	CONNECT WIRE-MOTOR	AWG24/10, AWG#24, 1700, PLAT	1	
12	DB31-10129C	MOTOR-STEPPING	GSP-24RW-045, DC12V, 40DB	4	
13	DB63-00051A	COVER-OUT A	ABS, T2, BLK	4	
14	DB63-00054A	COVER-OUT B	ABS, T2, BLK	1	
15	DB63-00250A	COVER-OUT C	ABS, T2.0, BLK	3	
16	DB70-00031A	PLATE-HANGER	STS304, T0.6	2	
17	DB74-00002A	FILTER-AIR	PP, T20, BLK	1	
18	DB92-00029A	ASSY-GRILLE IN	AG-240E, ASSY	1	
18-1	DB64-00050A	GRILLE-AIR INLET	HIPS, 20	1	
18-2	DB64-00052A	KNOB-SLIDE	HIPS	2	
18-3	DB67-00030A	SPRING-KNOB	0D 5.5, STS304, OD0.5, L34	2	
18-4	DB63-00040A	COVER-KNOB	HIPS	2	
19	DB97-00254A	ASSY-WIRED REMOTE CONTROL	KR-H50210, ASSY	1	

4-3 Outdoor unit

■ UCH2400C/2800C



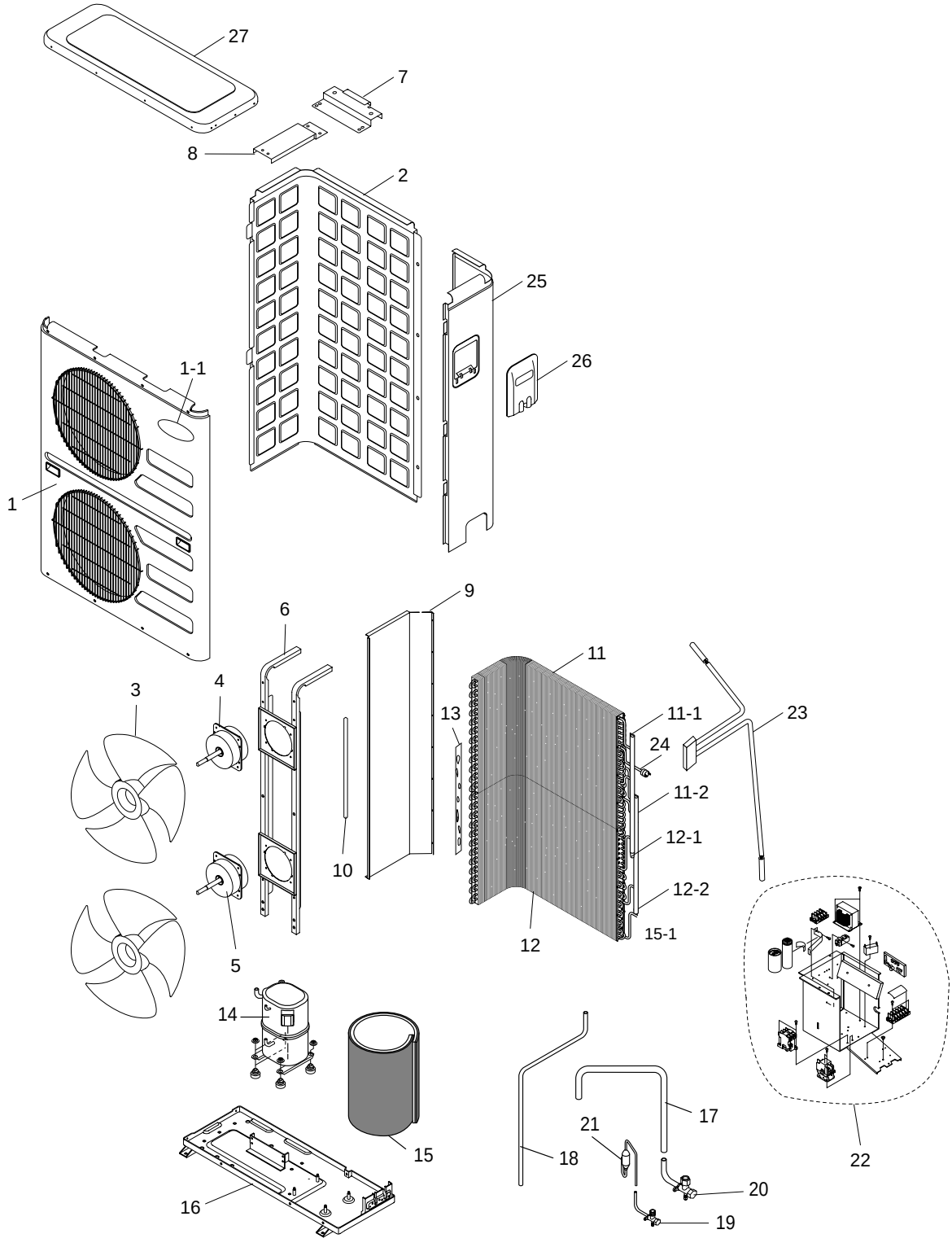
■ UCC2800C/2400C



■ Outdoor Unit Parts list

NO	CODE NO	Description	Specification	Q'TY			
				ACC2400C	ACC2800C	ACH2400C	ACH2800C
1	DB90 - 10634L	ASS'Y CABI FRONT	ASS'Y	1	-	1	-
	DB90 - 00228B	ASS'Y CABI FRONT	ASS'Y	-	1	-	1
2	DB90 - 20157L	ASS'Y-BASE OUT	AP-7650	1	1	1	1
3	DB67 - 50067A	FAN-PROPELLER	ABS+GF20, D495, 4BLADE	-	1	-	1
	DB67 - 50074A	FAN-PROPELLER	ABS+GF20, D460, 4BLADE	1	-	1	-
4	-	BOLT SPECIAL	M6	1	1	1	1
5	DB31 - 00060G	MOTOR	OSM-1296SRC	-	1	-	1
	DB31 - 00027B	MOTOR	OSM-626SRC	1	-	1	-
6	DB61 - 20093A	BASE-MOTOR	SGCC-M, T1.6	-	1	-	1
	DB95 - 20147A	ASS'Y MOTOR BKT	SGCC-M, T1.6	1	-	1	-
7	DB94 - 50039C	ASS'Y-PARTITION	ASS'Y	1	-	1	-
	DB94 - 50021D	ASS'Y-PARTITION	ASS'Y	-	-	-	1
	DB94 - 00069A	ASS'Y-PARTITION	ASS'Y	-	1	-	-
8	DB96 - 00880A	ASS'Y COND	D5 FP 1.7, H/P	-	-	-	1
	DB96 - 00611B	ASS'Y COND	D5 FP 1.3	-	1	-	-
	DB96 - 00322A	ASS'Y COND	D5 FP 1.3	1	-	-	-
	DB96 - 00355A	ASS'Y COND	D5 FP 1.7, H/P	-	-	1	-
9	DB90 - 40176B	ASS'Y-COVER CONTROL	ASS'Y, V5	1	-	-	-
10	DB90 - 00240B	ASS'Y CABI BACK	ACH2800C, CASSETTE-TYPE	-	1	-	1
	DB64 - 60160D	CABINET SIDE		1	-	1	-
11	DB90 - 10616D	ASS'Y-CABI UPPER	ADH2400E, ASS'Y	1	-	-	-
12	DB95 - 10057D	ASS'Y-COMP SCROLL	SCROLL, ZR28K3-PFV	-	1	-	1
	DB95 - 10057F	ASS'Y-COMP SCROLL	SCROLL, ZR24K3-PFV	1	-	1	-
12-1	DB73 - 10023A	GROMMET-COMP	EPDM, T41, BLK	4	4	4	4
12-2	DB60 - 30028A	NUT-WASHER	HEX, 2C, M8, ZPC	4	4	4	4
13	DB96 - 00809B	ASS'Y TUBE-4WAY V/V	5/8, ASS'Y	-	-	-	1
	DB99 - 10049C	ASS'Y SVS V/V 5/8	5/8, SUCTION	-	1	-	-
	DB96 - 00337B	ASS'Y TUBE-4WAY V/V	5/8, ASS'Y	-	-	1	-
	DB96 - 00394A	ASS'Y SVS V/V 5/8	5/8, SUCTION	1	-	-	-
13-1	DB62 - 40055F	VALVE-SERVICE	5/8"	1	1	1	1
13-2	DB62 - 00621A	VALVE 4WAY	CHV-03U	-	-	-	1
	DB62 - 00620A	VALVE 4WAY	CHV-02U	-	-	1	-
13-3	DB34 - 00021A	SWITCH-PRESSURE	120~240VAC, 2A, OFF33KG/cm^2 ON24KG/c	1	1	1	1
13-4	DB33 - 00017A	SOLENOID-COIL ASS'Y	CHV, 75C, -20~55C, 95%, 100M, 220/240V	-	-	1	1
14	DB96 - 00812A	ASS'Y TUBE-CHECK V/V	ASS'Y, 3/8	-	-	-	1
	DB96 - 10050B	ASS'Y SVS V/V 1/4	ASS'Y, 1/4	-	1	-	-
	DB96 - 00178B	ASS'Y TUBE-CHECK V/V	ASS'Y, 3/8	-	-	1	-
	DB96 - 00393A	ASS'Y SVS V/V 1/4	ASS'Y, 1/4	1	-	-	-
14-1	DB62 - 00609A	TUBE-CAPI CHECK	ID 1.7 x L350	-	-	-	1
	DB62 - 00312A	TUBE-CAPI CHECK	ID 1.7 x L400	-	-	1	-
14-2	DB62 - 40011G	VALVE-SERVICE	422LT/H, 3/8"	-	-	1	1
	DB62 - 40011E	VALVE-SERVICE	422LT/H, 1/4"	1	1	-	-
14-3	DB62 - 40105D	VALVE-CHECK	C1220T-0, -, 12.7, 30KG	-	-	1	1
15	DB96 - 00351B	ASS'Y TUBE DISCHARGE		1	-	-	-
	DB96 - 00721A	ASS'Y TUBE DISCHARGE		-	1	-	-
16	DB93 - 00716B	ASSY-BOX, CONTROL OUT	ASS'Y	-	-	-	1
	DB93 - 00726C	ASSY-BOX, CONTROL OUT	ASS'Y	-	1	-	-
	DB93 - 00726B	ASSY-BOX, CONTROL OUT	ASS'Y	1	-	-	-
	DB93 - 00716C	ASSY-BOX, CONTROL OUT	ASS'Y	-	-	1	-
16-1	DB34 - 90054B	SWITCH-MAGNET	220V60HZ, 25A, 41NB21AG	-	-	1	1
	DB34 - 90057B	SWITCH-MAGNET	220V60HZ, 25A, 45DG20A, FLA25A	-	1	-	-
	DB34 - 90057A	SWITCH-MAGNET	220V60HZ, 25A, 45CG20A, FLA20A	1	-	-	-
16-2	2501 - 001239	C-OIL	45μF, 450V, BK, 53x110mm, 20.6	-	1	-	1
	2501 - 001238	C-OIL	40μF, 450V, BK, 53x110mm, 20.6	1	-	1	-
16-3	PD-DH3200-S1	ASSY PCB PARTS		-	-	1	1
	PD-DH3200-S3	ASSY PCB PARTS		1	1	-	-
16-4	DB65 - 40022L	TERMINAL-BLOCK	ASS'Y 6P, 600V, 35A, NLN1L1CE, ADH2400E	1	1	1	1
16-5	DB61 - 00152A	CASE-PCB-OUT	T2.5, -, ABS, BLK, V5	1	1	1	1
16-6	DB26 - 10070A	TRANS-POWER	DC17, AC230, DC17, DC0.6A	1	1	1	1
16-7	2301 - 001367	C-FILM, MPE-PPF	6000nF, +10~5%, 450V, BK, 58x25x40mm, -	-	1	-	1
	2301 - 001369	C-FILM, MPE-PPF	3000nF, +10~5%, 450V, BK, 58x25x40mm, -	1	-	1	-
17	DB72 - 00159A	INSU COMP	T12	-	1	-	-
	DB72 - 00122A	CLOTH SOUND	T12, W800, L350	1	-	1	-
18	DB95 - 00209A	ASS'Y HEATER	ASS'Y	-	-	1	1
18-1	4720 - 000013	THERMAL FUSE	2A	-	-	1	1

■ UCC4400C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■ Outdoor Unit Parts list

NO	CODE NO	Description	Specification	Q'TY
				UCC4400C
1	DB90-00250A	ASSY CABI FRONT	ASS'Y,SC-90073T	1
1-1	DB68-10612A	LABEL-SAMSUNG	HARD PC,T0.5,67.5,238.5	1
2	DB90-00551A	ASSY CABI BACK-LF	RVSH040B2C0,SC-90073T	1
3	DB67-50067A	FAN-PROPELLER	ABS+GF20,D495,4BLADE	2
4	DB31-00060E	MOTOR	OSM-1286SRC(S550)	1
5	DB31-00060F	MOTOR FAN	OSM-1286SRC(S551)	1
6	DB90-30028F	ASSY MOUNT MOTOR-BASIC	RVSH040H2C0,CASSETTE-TYPE	1
7	DB61-00398A	SUPPORTER MOTOR	SGCC-M,T1.6	1
8	DB61-30615A	SUPPORTER FRAME	SGCC-M,T1.2	1
9	DB67-30025A	PARTITION	SBHG1,T1,389.17X1239.46	1
10	DB61-30365A	SUPPORTER-COND	SBHG1,T1.6,499X22	1
11	DB96-01262A	ASSY COND-UP	WAVE 1.7	1
11-1	DB96-50074B	ASSY-COLLECTOR IN UP	ASS'Y, CI220T-0	1
11-2	DB96-50071B	ASSY-COLLECTOR OUT UP	ASS'Y, CI220T-0	1
12	DB96-01267A	ASSY COND-LOW	WAVE 1.7	1
12-1	DB96-50073A	ASSY-COLLECTOR IN LOW	ASS'Y, CI220T-0	1
12-2	DB96-50072B	ASSY-COLLECTOR OUT LOW	ASS'Y, CI220T-0	1
13	DB61-30358B	SUPPORTER-UNIT OUT	SGCC-M,T1.2	1
14	DB95-10279A	ASS'Y COMP	CR42K6-PFV, COPELAND	1
15	DB72-50587A	INSULATION SOUND	T12,W960,L380 FELT	1
16	DB90-00247A	ASSY BASE OUT	ASS'Y,SC-90073T	1
17	DB62-31554A	TUBE SUCTION	C1220T0-0	1
18	DB62-31553A	TUBE DISCHARGE	C1220T0-0	1
19	DB96-01775A	ASS'Y VALVE	ASS'Y, 3/8	1
20	DB96-01776A	ASS'Y VALVE	ASS'Y, 3/4	1
21	DB62-10002C	DRYER	C1220T-0, OD12.7, T0.7	1
22	DB93-01171A	ASSY CONTROL OUT	UCC4400C 450V 5.0UF	1
23	DB32-00021B	THERMISTOR	103AT,10KOHM	1
24	DB34-00021A	ASS'Y HIGH PRESSURE S/W	SAGINOMIYA, 33K	1
25	DB90-00550A	ASSY CABI BACK-RH	RVSH040B2C0,SC-90073T	1
26	DB90-00144A	ASSY COVER-CONTROL	ASM-3500A,B, FLAME RETARDANT ABS	1
27	DB90-00273A	ASSY-CABI UPPER	ASS'Y,SC-90073T	1

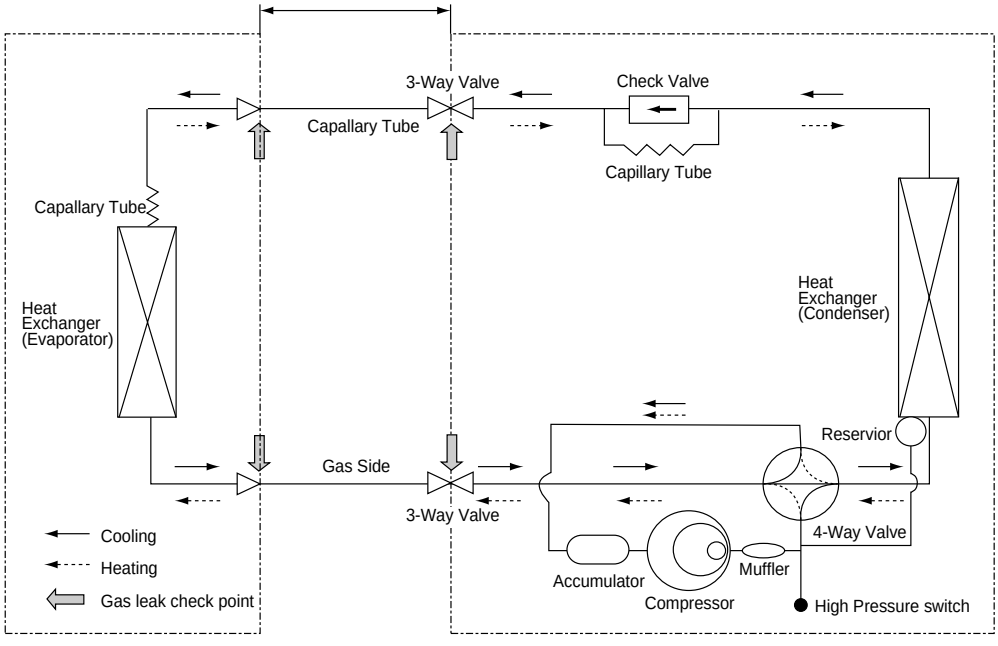
MEMO

5. Refrigerating Cycle Block Diagram

5-1 Model : ACH2800C

Indoor Unit **Outdoor Unit**

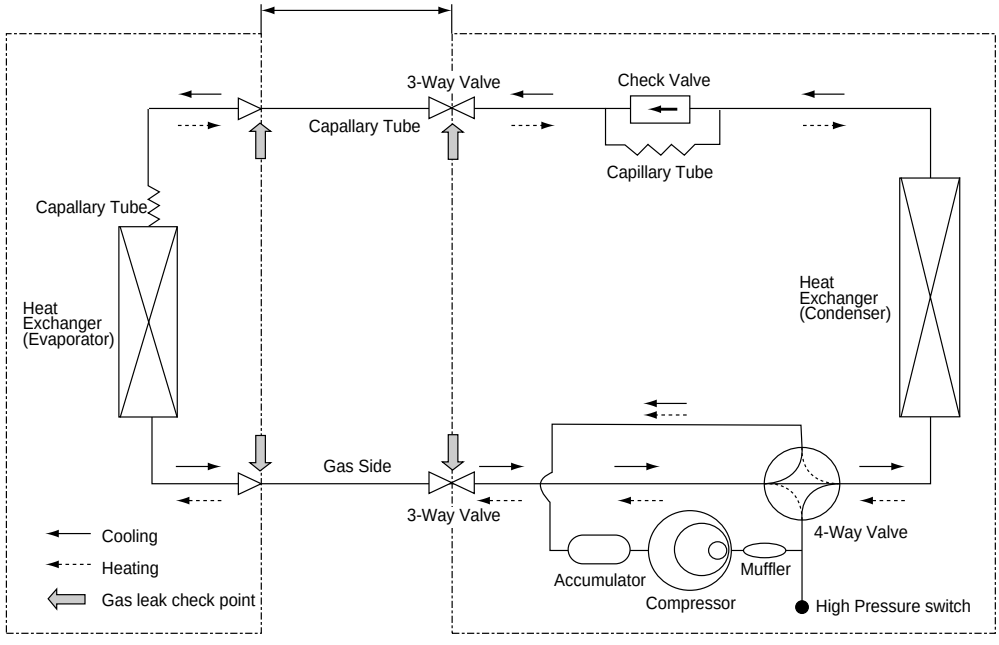
*Allowable pipe length : Max. 30m
*Allowable drop distance : Max. 15m



*Amount of refilling per extension length of 1m;
When extending the pipe length by more than 5m, 40gr(50gr: Outdoor Unit is higher than Indoor Unit) of R-22 refrigerant should be refilled per extension length of 1m.

Indoor Unit **Outdoor Unit**

*Allowable pipe length : Max. 30m
*Allowable drop distance : Max. 15m

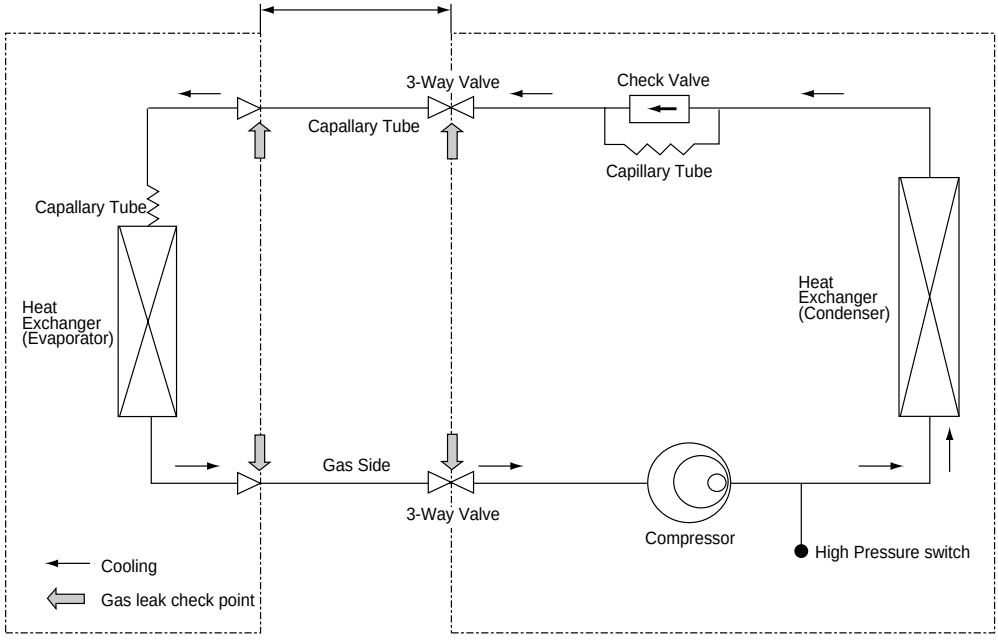


*Amount of refilling per extension length of 1m;
When extending the pipe length by more than 5m, 40gr(50gr: Outdoor Unit is higher than Indoor Unit) of R-22 refrigerant should be refilled per extension length of 1m.

5-3 Model : ACC2400C, ACC2800C, ACC4400C

Indoor Unit **Outdoor Unit**

*Allowable pipe length : Max. 30m
*Allowable drop distance : Max. 15m



*When extending the pipe length by more than 5m, “A” gr of R-22 refrigerant should be refilled per extension length of 1m. (Refer to the table below for “A”.)

Model	A	
	When indoor unit is higher than outdoor unit	When outdoor unit is higher than indoor unit
ACC2400C ACC2800C	40	50
ACC4400C	65	75

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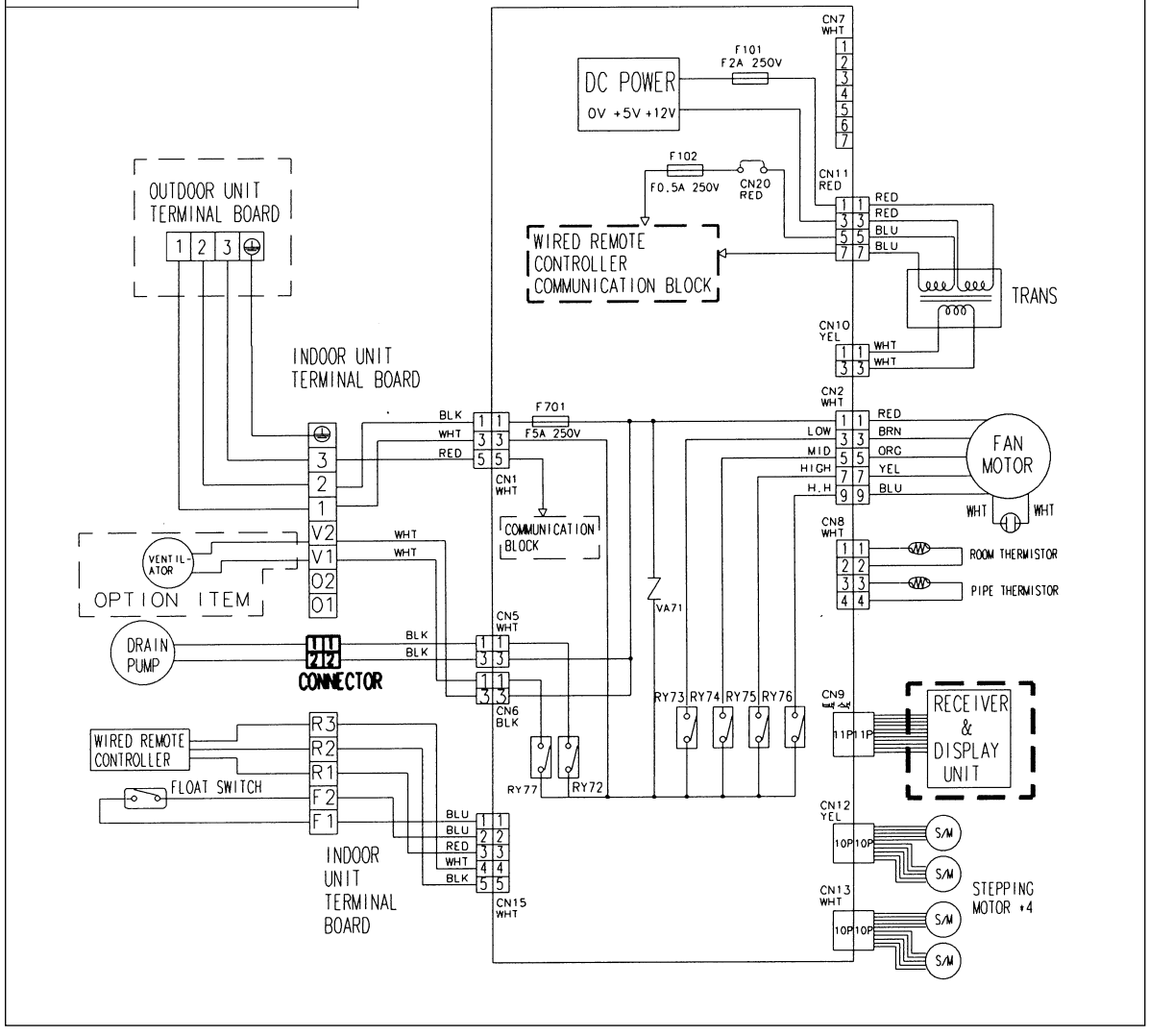
6. Wiring Diagrams

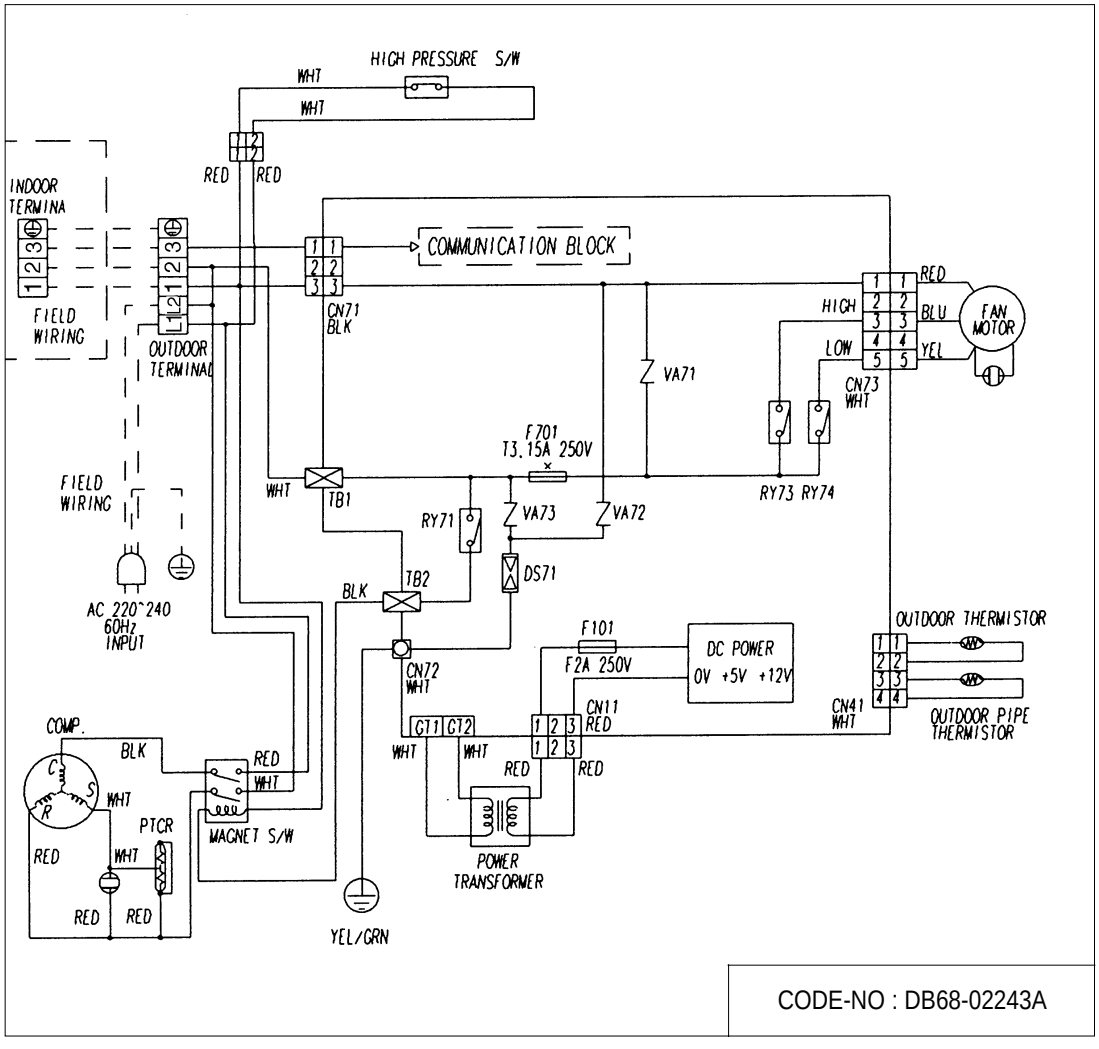
6-1 Indoor Unit

■ ACH2400C/ACH2800C/ACC2800C/ACC2400C/ACC4400C

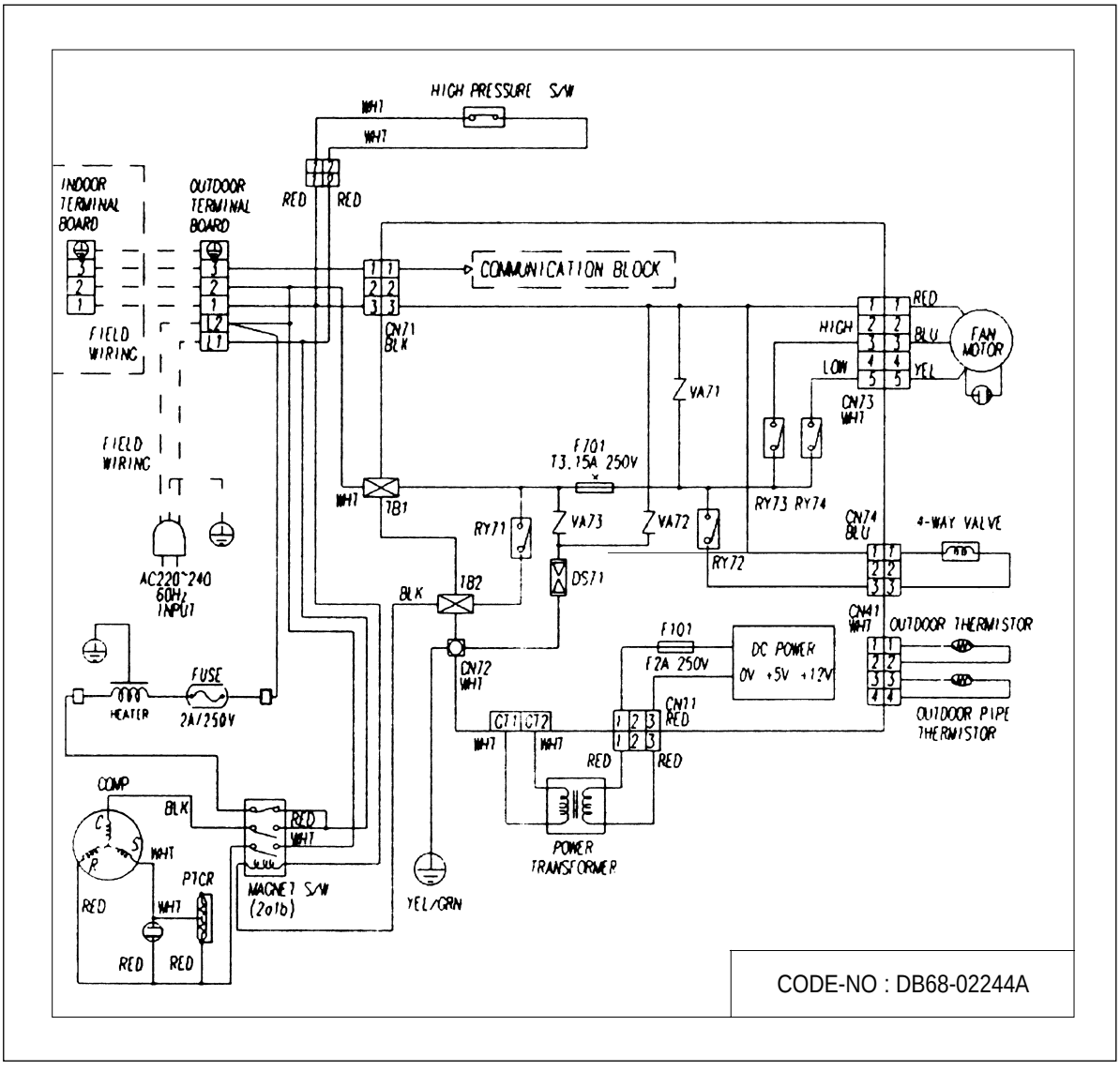
CODE-NO : DB68-02242A



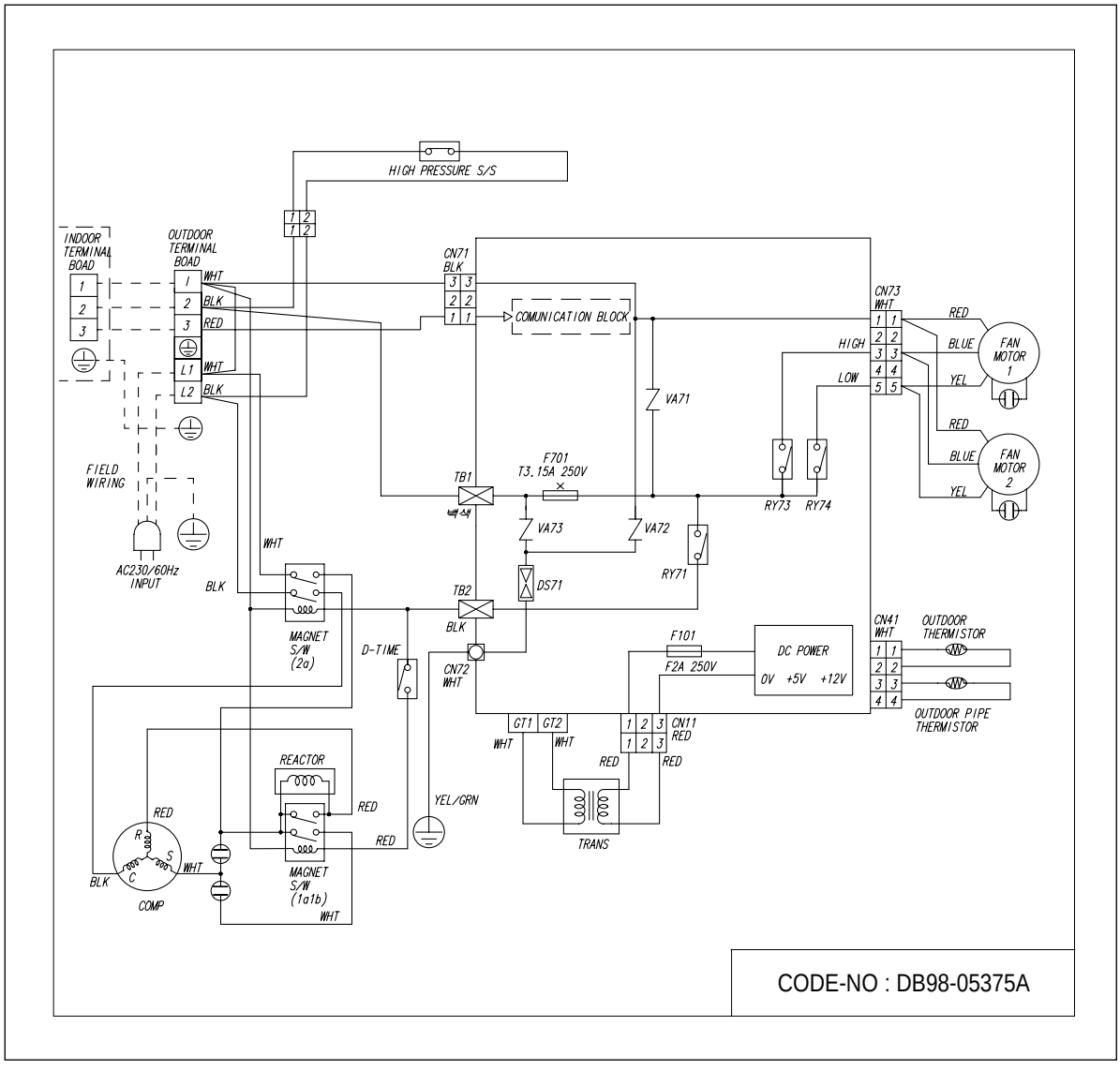
■ UCC2800C/2400C



■ UCH2800C/UCH2400C



■ UCC4400C


HIGH PRESSURE S/S
INDOOR TERMINAL BOAD
OUTDOOR TERMINAL BOAD
CN71
COMUNICATION BLOCK
CN73
FAN MOTOR 1
FAN MOTOR 2
HIGH
LOW
VA71
VA72
VA73
F701
T3.15A 250V
TB1
TB2
RY71
RY73
RY74
DS71
FIELD WIRING
AC230/60Hz INPUT
MAGNET S/W (2a)
MAGNET S/W (1a1b)
D-TIME
CN72
REACTOR
COMP
F101
F2A 250V
DC POWER
0V +5V +12V
CN41
OUTDOOR THERMISTOR
OUTDOOR PIPE THERMISTOR
GT1
GT2
CN11
TRANS
YEL/GRN
CODE-NO : DB98-05375A

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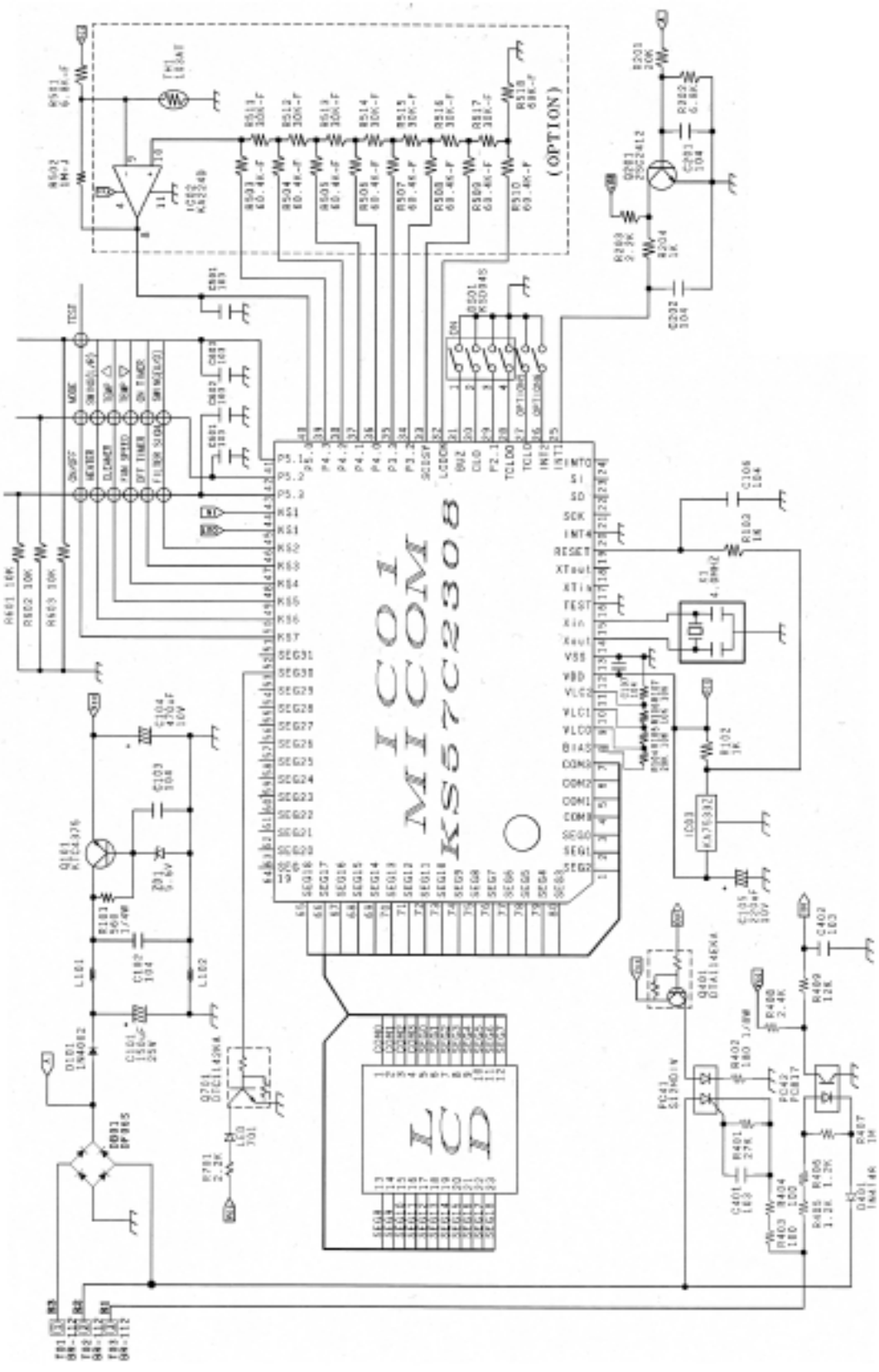
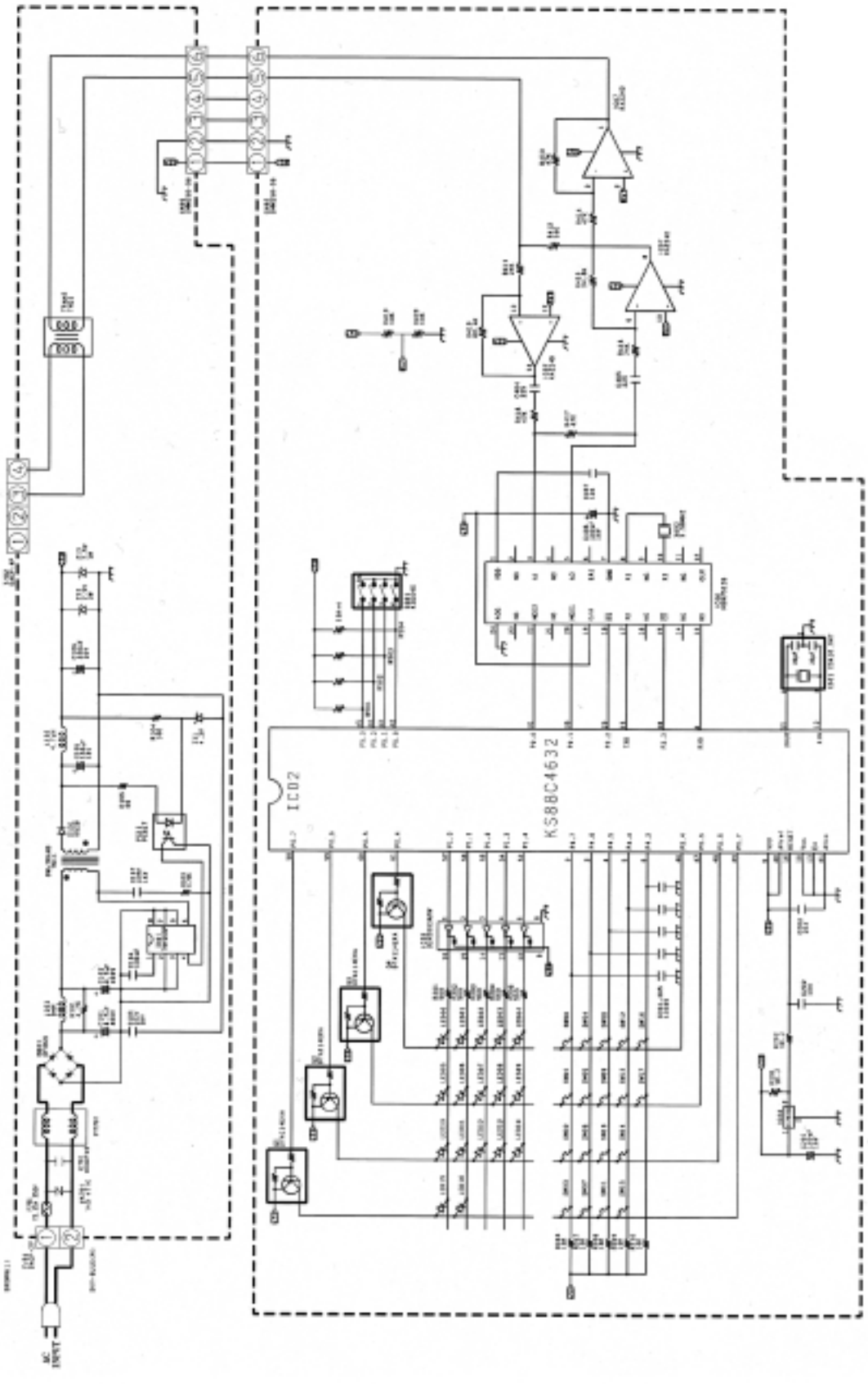
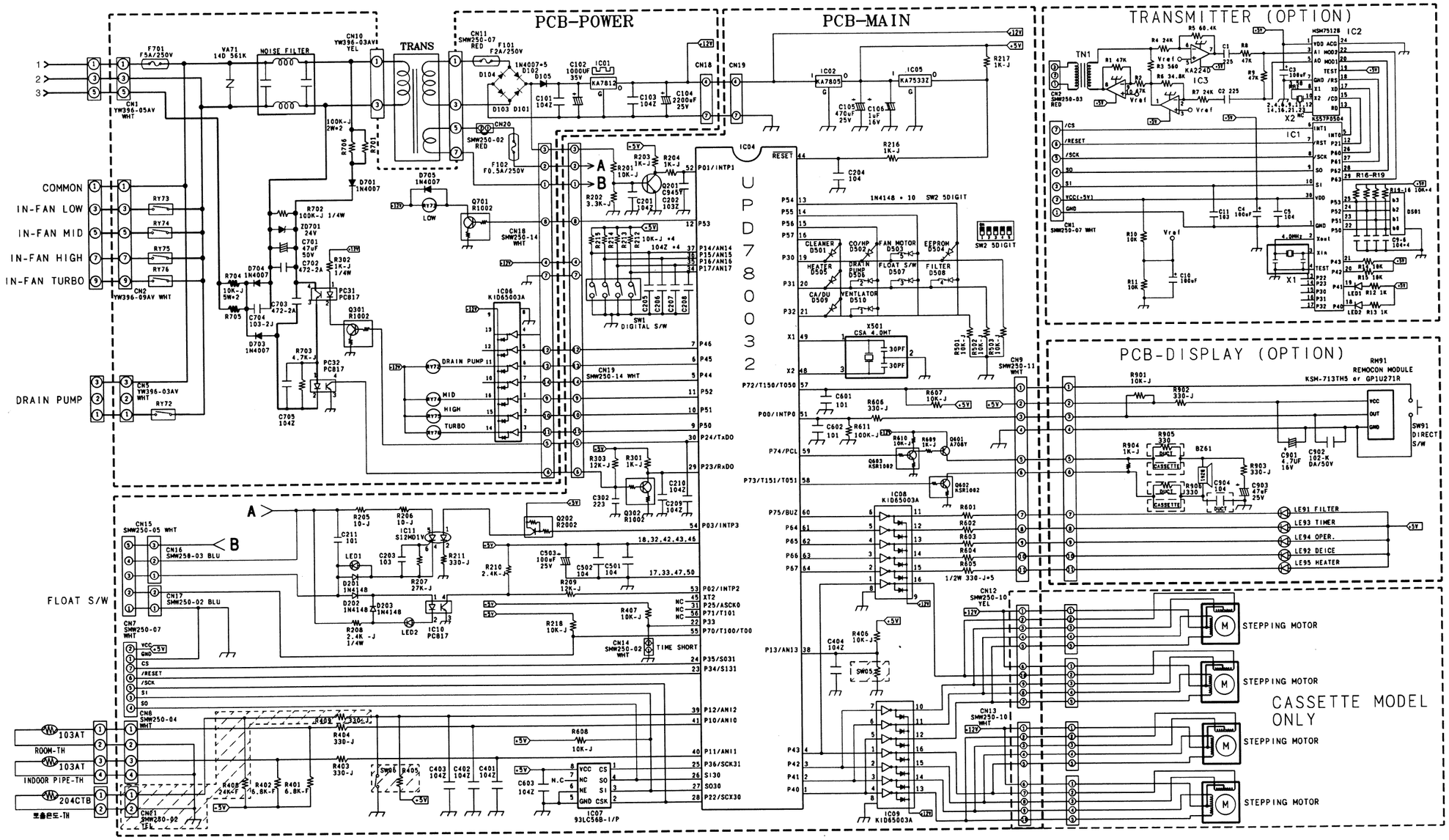
7. Schematic Diagrams

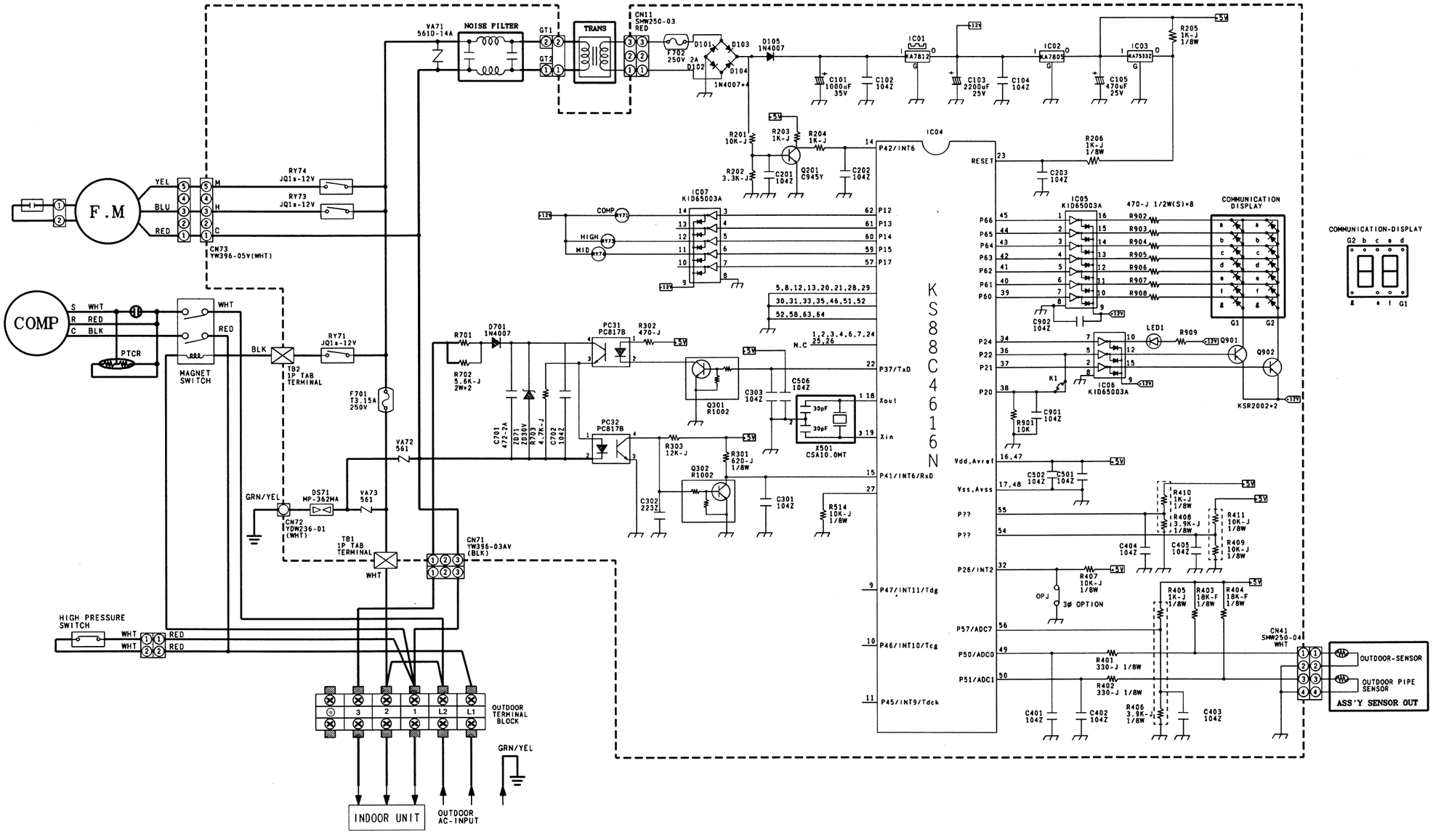
7-1 Wired Remote Controller

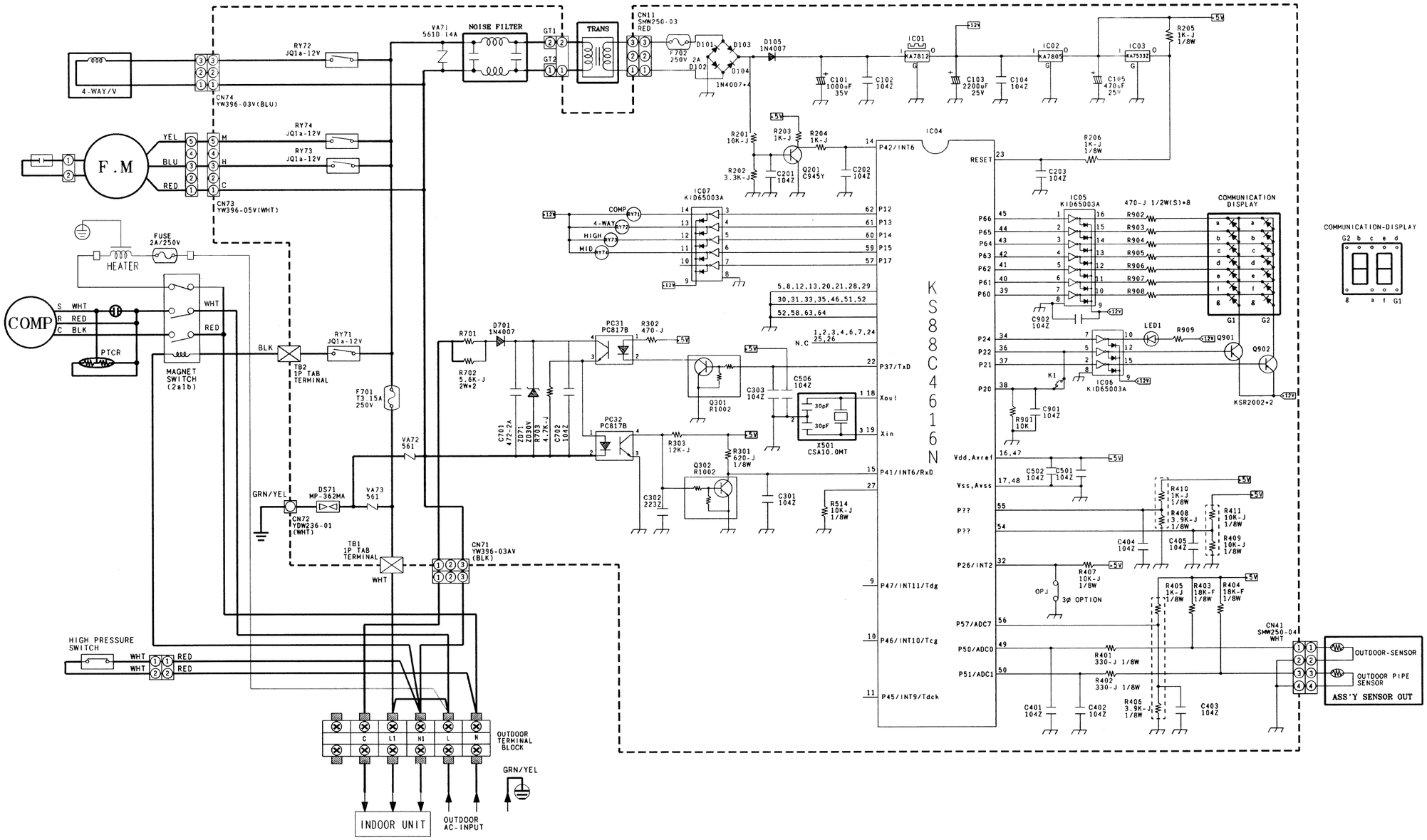


7-2 Centralized Controller




PCB-POWER
PCB-MAIN
TRANSMITTER (OPTION)
PCB-DISPLAY (OPTION)
TRANS
NOISE FILTER
UPD780032
COMMON
IN-FAN LOW
IN-FAN MID
IN-FAN HIGH
IN-FAN TURBO
DRAIN PUMP
FLOAT S/W
ROOM-TH
INDOOR PIPE-TH
STEPPING MOTOR
CASSETTE MODEL ONLY
REMOCON MODULE
KSM-713TH5 or GP1U271R
LE91 FILTER
LE93 TIMER
LE94 OPER.
LE92 DEICE
LE95 HEATER


KS88C4616N
F.M
YEL
BLU
RED
CN73 YW396-05V(WHT)
RY74 JQ1a-12V
RY73 JQ1a-12V
RY71 JQ1a-12V
COMP
S WHT
R RED
C BLK
PTCR
MAGNET SWITCH
WHT
RED
BLK
TB2 1P TAB TERMINAL
F701 T3.15A 250V
VA71 561D-14A
NOISE FILTER
GT1
GT2
TRANS
CN11 SMW250-03 RED
F702 250V 2A
D101
D102
D103
D104
1N4007*4
D105 1N4007
IC01 KA7812
IC02 KA7805
IC03 KA75337
C101 1000uF 35V
C102 104Z
C103 2200uF 25V
C104 104Z
C105 470uF 25V
R205 1K-J 1/8W
R201 10K-J
R203 1K-J
R204 1K-J
R202 3.3K-J
C201 104Z
Q201 C945Y
C202 104Z
IC04
P42/INT6
RESET
R206 1K-J 1/8W
C203 104Z
IC07 KID65003A
COMP
HIGH
MID
P12
P13
P14
P15
P17
IC05 KID65003A
470-J 1/2W(S)*8
COMMUNICATION DISPLAY
R902
R903
R904
R905
R906
R907
R908
C902 104Z
LED1
R909
Q901
Q902
KSR2002*2
IC06 KID65003A
C901 104Z
R901 10K
5,8,12,13,20,21,28,29
30,31,33,35,46,51,52
52,58,63,64
1,2,3,4,6,7,24
25,26
N.C
P37/TxD
P41/INT6/RxD
P47/INT11/Tdg
P46/INT10/Tcg
P45/INT9/Tdck
R701
D701 1N4007
R702 5.6K-J 2W*2
PC31 PC817B
R302 470-J
Q301 R1002
C303 104Z
X501 CSA10.0MT
30pF
Xout
Xin
C506 104Z
C701 472-2A
ZD71 Z030V
R703 4.7K-J
C702 104Z
PC32 PC817B
R303 12K-J
R301 620-J 1/8W
Q302 R1002
C302 223Z
C301 104Z
R514 10K-J 1/8W
Vdd,Avref
Vss,Avss
C502 104Z
C501 104Z
P??
P26/INT2
R407 10K-J 1/8W
OPJ
3ø OPTION
R410 1K-J 1/8W
R408 3.9K-J 1/8W
R411 10K-J 1/8W
C404 104Z
C405 104Z
R409 10K-J 1/8W
R405 1K-J 1/8W
R403 18K-F 1/8W
R404 18K-F 1/8W
P57/ADC7
P50/ADC0
P51/ADC1
R401 330-J 1/8W
R402 330-J 1/8W
R406 3.9K-J 1/8W
C401 104Z
C402 104Z
C403 104Z
CN41 SMW250-04 WHT
OUTDOOR-SENSOR
OUTDOOR PIPE SENSOR
ASS'Y SENSOR OUT
COMMUNICATION-DISPLAY
G2 b c e d
g a f G1
VA72 561
VA73 561
GRN/YEL
DS71 MP-362MA
CN72 YDW236-01 (WHT)
TB1 1P TAB TERMINAL
CN71 YW396-03AV (BLK)
HIGH PRESSURE SWITCH
OUTDOOR TERMINAL BLOCK
3 2 1 L2 L1
INDOOR UNIT
OUTDOOR AC-INPUT


4-WAY/V
CN74 YW396-03V(BLU)
RY72 JQ1a-12V
RY74 JQ1a-12V
RY73 JQ1a-12V
F.M
YEL
BLU
RED
CN73 YW396-05V(WHT)
FUSE 2A/250V
HEATER
COMP
S WHT
R RED
C BLK
PTCR
MAGNET SWITCH (2a1b)
WHT
RED
BLK
TB2 1P TAB TERMINAL
RY71 JQ1a-12V
F701 T3.15A 250V
VA71 561D 14A
NOISE FILTER
GT1
GT2
TRANS
CN11 SMW250-03 RED
F702 250V 2A
D101
D102
D103
D104
D105 1N4007
1N4007*4
IC01 KA7812
IC02 KA7805
IC03 KA75337
C101 1000uF 35V
C102 104Z
C103 2200uF 25V
C104 104Z
C105 470uF 25V
R205 1K-J 1/8W
R201 10K-J
R203 1K-J
R204 1K-J
R202 3.3K-J
Q201 C945Y
C201 104Z
C202 104Z
IC04
P42/INT6
RESET
R206 1K-J 1/8W
C203 104Z
IC07 KID65003A
COMP
4-WAY
HIGH
MID
P12
P13
P14
P15
P17
IC05 KID65003A
470-J 1/2W(S)*8
COMMUNICATION DISPLAY
R902
R903
R904
R905
R906
R907
R908
C902 104Z
P66
P65
P64
P63
P62
P61
P60
G1
G2
COMMUNICATION-DISPLAY
G2 b c e d
g a f G1
5,8,12,13,20,21,28,29
30,31,33,35,46,51,52
52,58,63,64
1,2,3,4,6,7,24
N.C
25,26
R701
D701 1N4007
R702 5.6K-J 2W*2
PC31 PC817B
R302 470-J
PC32 PC817B
R303 12K-J
R301 620-J 1/8W
Q301 R1002
Q302 R1002
C303 104Z
C506 104Z
30pF
30pF
X501 CSA10.0MT
Xout
Xin
P37/TxD
P41/INT6/RxD
P47/INT11/Tdg
P46/INT10/Tcg
P45/INT9/Tdck
C701 472-2A
D701 2A
ZD30V
R703 4.7K-J
C702 104Z
C301 104Z
C302 223Z
R514 10K-J 1/8W
LED1
R909
Q901
Q902
KSR2002*2
K1
IC06 KID65003A
C901 104Z
R901 10K
Vdd,Avref
Vss,Avss
16,47
17,48
C502 104Z
C501 104Z
P??
P??
P26/INT2
R410 1K-J 1/8W
R408 3.9K-J 1/8W
R411 10K-J 1/8W
R409 10K-J 1/8W
C404 104Z
C405 104Z
R407 10K-J 1/8W
OPJ
3ø OPTION
R405 1K-J 1/8W
R403 18K-F 1/8W
R404 18K-F 1/8W
P57/ADC7
P50/ADC0
P51/ADC1
R401 330-J 1/8W
R402 330-J 1/8W
R406 3.9K-J 1/8W
C401 104Z
C402 104Z
C403 104Z
CN41 SMW250-04 WHT
OUTDOOR-SENSOR
OUTDOOR PIPE SENSOR
ASS'Y SENSOR OUT
K S 8 8 C 4 6 1 6 N
DS71 MP-362MA
VA72 561
VA73 561
GRN/YEL
CN72 YDW236-01 (WHT)
TB1 1P TAB TERMINAL
CN71 YW396-03AV (BLK)
HIGH PRESSURE SWITCH
WHT
RED
OUTDOOR TERMINAL BLOCK
C
L1
N1
L
N
INDOOR UNIT
OUTDOOR AC-INPUT

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UPDATE LOG SHEET

Application date	Page	Part#	Note(Cause & Solution)	S/Bulletin#

Use this page to keep any special servicing information. (Service Bulletin, etc.)
If only parts number changes, Just change parts number directly on parts list.
And if you need more information, please see the service website.

Itself Solution Integrated technology supporting electronic library
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